

1934



1934

**THRILLING**

# **WONDER**

**STORIES**

**15¢**

**FEB.**

**DAY OF THE TITANS**

A Novel of  
Super-Life  
By **ARTHUR  
K. BARNES**



**A THRILLING  
PUBLICATION**

**FEATURING**

## **DOOM OVER VENUS**

A Complete Novel of the Future

By **EDMOND HAMILTON**

# BANKERS LIFE AND CASUALTY COMPANY OFFERS THE NEW



The Murray Family, 4712 Leamington Ave., Chicago, Ill.

**GROUP LIFE POLICY  
THAT INSURES THE  
ENTIRE FAMILY**

**TOTAL  
COST ONLY**  
**\$ 1<sup>00</sup>**  
**A MONTH**

## GRANDPARENTS, PARENTS, CHILDREN, AGES 1-75 ALL INSURED IN ONE SINGLE LIFE INSURANCE POLICY

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ANY CAUSE, THIS POL-  
ICY PAYS UP TO—**

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maximum for natural  
or ordinary death . . .

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maximum for accidental  
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maximum for accidental  
death by travel . . .

**ALL FOR  
\$1.00 A MONTH**

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The huge reserve of this strong, reliable company are all invested in United States Government Bonds, which are locked in the vaults of the State of Illinois.

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We want you to see the policy . . . then decide for yourself. So fill out coupon now for 10-day Free Inspection offer and guarantee. No obligation . . . no agent will call . . . no medical examination. **ACT NOW!**

### ACT NOW— AND RETURN COUPON AT ONCE

**BANKERS LIFE AND CASUALTY CO.**  
Bankers Insurance Bldg., Jefferson St., Desk 32  
Chicago, Illinois.

Please send details and tell me how to get the Family Group Policy for free inspection.

Name .....

Street or R. F. D. ....

City..... State.....

**ACT NOW • SEND COUPON!**

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## Big Weekly Cash Earnings Waiting Right in Your Locality

Over 500 more men and women will be started at once in a fine paying occupation right in their own home localities. Right now there may be an opening waiting for you in your locality. If so, this old-established company will furnish everything you

need to get started at once—give you all the help you require, and back you with its proven successful plan. This may be “the chance of your life” to be independent—be your own boss—engage in a pleasant, steady occupation—and make more than just a modest living for yourself and family.

for you in your own or nearby locality, mail the Application below. By return mail you will be notified whether we have an opening for you; and if we have, you will receive full information about our Local Dealer Plan. You don't send a penny—just mail the Application. There will be no obligation on your part. You can decide after you read the plan. But don't wait—send your Application at once.

**APPLY  
NOW!**

### Find Out If Your Locality is Open

If you want to know whether there is an opening

**E. J. MILLS, President**  
1542 Monmouth Avenue,  
Cincinnati, Ohio

**Clip Out and Mail TODAY.**

### LOCAL DEALER APPLICATION

- (1) Write Your Full Name and Address Here:

Name .....  
(State whether Mr., Mrs., or Miss)

Address .....

City and State.....

- (2) State Your Age, and Present or Former Occupation:

Age..... Occupation.....

- (3) How Much Time Can You Devote?

Mark with an "X" FULL TIME  PART TIME

- (4) Can You Start at Once? Mark with an "X" YES  NO

If you cannot start at once, state about when you will be able to start.

**SEND  
NO MONEY!**

Just fill Out and Mail at Once to  
**E. J. MILLS, President**  
1542 Monmouth Ave., Cincinnati, Ohio

**NOW! A NEW ISSUE EVERY MONTH!**

**THRILLING  
WONDER  
STORIES**

*The Magazine of Prophetic Fiction*



Vol. XV NO. 2  
February, 1940

IN NEXT  
MONTH'S ISSUE

**WORLDS WITHIN  
WORLDS**

A Complete Novel of a  
Lost Universe

By  
**FREDERIC ARNOLD  
KUMMER, JR.**

**PLANET OF  
CHANGE**

A Novelet of Pioneers  
on Venus

By  
**MANLY WADE  
WELLMAN**

**THE TIME  
CHEATERS**

A Novelet of  
Eternity's End

By  
**EANDO BINDER**

**VIA SUN**

An Interplanetary  
Story

By  
**GORDON A. GILES**

and many others

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*I jumped from \$18 a week to \$50*  
 -- a Free Book started me toward this  
**GOOD PAY IN RADIO**

**HERE'S**  
*How it*  
*Happened*  
 by S. J. E.  
 (NAME AND ADDRESS  
 SENT UPON REQUEST)



"I had an \$18 a week job in a shoe factory. I'd probably be at it today if I hadn't read about the opportunities in Radio and started training at home for them."



"The training National Radio Institute gave me was so practical I was soon ready to make \$5 to \$10 a week in spare time servicing Radio sets."



"When I finished training I accepted a job as serviceman with a Radio store. In three weeks I was made service manager at more than twice what I earned in the shoe factory."



"Eight months later N. R. I. Employment Department sent me to Station KWCB as a Radio operator. Now I am Radio Engineer at Station WHTL. I am also connected with Television Station W9XK."



"N. R. I. Trainers took me out of a low-pay shoe factory job and put me into Radio at good pay. Radio is growing fast."



*Find out today* how I Train You at Home  
**to BE A RADIO TECHNICIAN**

J. E. SMITH, President  
 National Radio Institute  
 Established 23 Years

**RADIO IS A YOUNG, growing field with a future, offering many good pay spare time and full time job opportunities. And you don't have to give up your present job to become a Radio Technician. I train you right at home in your spare time.**

**Why Many Radio Technicians Make \$30, \$40, \$50 a Week**

Radio broadcasting stations employ engineers, operators, technicians, Radio manufacturers employ testers, inspectors, foremen, servicemen in good-pay jobs. Radio jobbers, dealers, employ installation and service men. Many Radio Technicians open their own Radio sales and repair businesses and make \$30, \$40, \$50 a week. Others hold their regular jobs and make \$5 to \$10 a week fixing Radios in spare time. Automobile, police, aviation, Commercial Radio; loudspeaker systems, electronic devices are other fields offering opportunities for which N. R. I. gives the required knowledge of Radio. Television promises to open good jobs soon.

**Many Make \$5, \$10 a Week Extra in Spare Time While Learning**

The day you enroll, I start sending you Extra Money Job Sheets which start showing you how to do Radio repair jobs. Throughout your Course, I send plans and directions which have helped many make \$200 to \$500 a year in spare time while learning. I send special Radio equipment to conduct experiments and build circuits. This 50-50 training method makes learning at home interesting, fascinating, practical. I ALSO GIVE YOU A MODERN, PROFESSIONAL, ALL-WAVE, ALL-PURPOSE SET SERVICING INSTRUMENT to help you make money

fixing Radios while learning and equip you for full time work after you graduate.

**Find Out What Radio Offers You**

Act Today! Mail the coupon for my 64-page book, "Rich Rewards in Radio." It points out Radio's spare time and full time opportunities and those coming in Television; tells about my course in Radio and Television; shows many letters from men I have trained, telling what they are doing and earning. Read my master back agreement. MAIL COUPON in an envelope or paste on a penny postcard —NOW!

J. E. SMITH, President  
 Dept. DB09, National Radio Institute  
 Washington, D. C.

**MAIL NOW • Get 64 page book FREE**



J. E. SMITH, President, Dept. DB09, National Radio Institute, Washington, D. C.  
 Send me FREE, without obligation, your 64-page book "Rich Rewards in Radio" which points out Radio's opportunities and tells how you train men at home to be Radio Technicians. (Write Plainly.)

NAME..... AGE.....  
 ADDRESS.....  
 CITY..... STATE.....

# The Money Making Marvel of the Age!

## PICTURE RING SELLS TO EVERYONE!

SAMPLE

RING

From Any Photo You Send Only

40¢

Hand Tinted in Natural Life Like Colors. 10c Extra

It's here! The hottest, most sensational, most gripping selling idea of the age! THE PICTURE RING—the ring men and women everywhere, rich and poor, young and old want to wear and keep their whole lives long. Why? Because on this beautiful ring is permanently reproduced any photograph, snapshot or picture of some loved one. Yes—reproduced clearly and sharply and made part of the ring itself so it can't rub off, come off or fade off. This sensational new idea is making an unbelievable bit. Men and women—even those without an hour's selling experience—are taking dozens of orders a day and making dollars of profit by this handout. And now, in your territory, YOU can cash in big, every day, with this exciting sure-fire profit-maker and earn money so easily, it will seem more like play than work.

## SELLS TO EVERYONE!

A Treasure Remembrance  
Its Value Beyond Price!

Once women carried pictures of their loved ones in lockets; and men carried them in watch cases. Those days are gone, but the desire to carry the portrait of a loved one is as strong as ever. Not until the amazing secret process for transferring pictures to rings was discovered, was it possible to revive this grand old custom and to satisfy the hunger of every human being to express again this grandest of all sentiments. How mothers and fathers will welcome this opportunity to wear a ring with the most precious setting of all—a picture of their beloved child. How happy every man and woman will be to keep alive the memory of a departed one by carrying with them always, night and day, this beautiful Picture Ring.

Order Your Sample Ring Now!  
You Don't Risk a Penny!

Never before has anything like this come your way. No competition from anyone—no looking for prospects (they are all around you)—no carrying a big stock or putting any money into goods. Simply showing your sample ring a few times a day, if you only start with your friends and neighbors, will be enough to give you an endless chain of orders. We cut away all red tape and are ready to send you a SAMPLE RING at a sensational low special wholesale price of only 40c. The minute you take it out of its beautiful Gift Box you are ready to go after the orders. Rush the coupon below for YOUR sample ring NOW! That's all the outfit you need. It will do all your selling for you. And we make it easy for you to obtain this sample ABSOLUTELY FREE OF A PENNY COST under our liberal offer.



PICTURE RING CO.

DEPT. E-26

12 TH. G JACKSON STREET  
CINCINNATI OHIO



Beautiful Permanent  
Picture Ring Made  
From Any Photo or Picture

For only \$1.00 retail—look what you offer. A made-to-measure octet-like ring adorned with the most precious setting in the world—a reproduction of the picture of a loved one. The ring itself can't tarnish. It will wear forever with ordinary care. The picture of the loved one is clearly, sharply reproduced with surprising faithfulness and becomes an inseparable part of the ring. It can't wear off, rub off, or fade off.

Make Pockets Full of Dollars  
Just Wearing Ring!

Can you imagine a more novel, more unusual gift than the Picture Ring? How can any man or woman find a more beautiful way to express loving sentiment than giving a wife, a child, a parent, a friend, a sweetheart a Picture Ring with the donor's portrait expertly reproduced? What a surprise! 10 orders a day is an easy goal—20 orders a day are not too much to expect.

## SEND NO MONEY!

Hundreds of customers write they wouldn't take a fortune for their rings if they couldn't get others. \$5.00 and even \$10.00 would be a small price for the PICTURE RING—but as a special offer we send you the beautiful PICTURE RING, made from any photo or picture you send for only 40c! Don't wait. Rush the coupon at once for the sample ring on our NO RISK plan and see for yourself what a whirl-wind money maker this is for you. ACT RIGHT NOW!

MOTHER

HUSBAND

BABY



## SEND YOUR RING SIZE NOW

PICTURE RING CO.,  
Dept. E-26,  
12th and Jackson Sts.,  
Cincinnati, Ohio.

RING SIZE

Enclosed is photo. Please rush my individually made Picture Ring and starting equipment. Will pay postmen 40c plus few cents postage. It is understood that if I am not entirely satisfied, I can return ring within 5 days and you will refund my money in full. Hand Tinted in Natural Life Like Colors. 10c Extra

Name.....

Address.....

City..... State.....

PICTURE RING SIZE: Measure around second joint of finger, press so thumb and ring finger meet. Measure in 1/16 inch increments and send to Cincinnati, Ohio.

# IMAGINE THEIR JOY

## WHEN THEY FOUND THEY COULD PLAY

### This easy as A.B.C. way!



#### Learned Quickly at Home

I didn't dream I could actually learn to play without a teacher. Now, when I play for people they hardly believe that I learned to play so well in so short a time.

\* H. C. S., Calif.

#### Wouldn't Take \$1,000 for course

The lessons are so simple that any one can understand them. I have learned to play by note in a little more than a month. I wouldn't take a thousand dollars for my course.

\* E. E. A., Kansas City, Mo.



#### Surprised Friends

I want to say that my friends are greatly surprised at the different pieces I can already play. I am very happy to have chosen your method of learning.

\* B. F., Bronx, N. Y.

#### Plays on Radio

I am happy to tell you that for four weeks I have been on the air over our local radio station. So thanks to your institution for such a wonderful course.

\* W. H. S., Alabama.



#### Best Method by Far

Enclosed is my last examination sheet for my course in Tenor Banjo. This completes my course. I have taken lessons before under teachers, but my instructions with you were by far the best.

\* A. C., Minn.

## What Instrument Would You Like To Play?

**J**UST name your instrument and we'll show you how you can learn to play it—quickly, easily, in spare time at home. Never mind if you don't know one note of music from another—don't worry about "special talent." And forget all you've ever heard about music's being hard to learn.

The truth of the matter is that *thousands now play who never thought they could!* Yes, men and women everywhere have discovered this amazingly easy way to learn music at home. Now they are enjoying the thrilling satisfaction of playing the piano, violin, guitar, saxophone or other favorite instruments. Some of them are playing in orchestras and over the radio; others are teaching music, making money in spare or full time. And thousands are having the

time of their lives playing for their own enjoyment and the entertainment of their friends.

It all came about when they wrote to the U. S. School of Music for the **Free Booklet** that shows you how **EASY** it is to learn music at home this modern way. No tedious study and practice, no tiresome exercises. You learn to play *by playing*—start right in almost at once with the melody of a simple tune! It takes only a few minutes a day and the cost is trifling; you save the expense of a private teacher. Does it sound too good to be true? Mail the coupon and get the **FREE BOOKLET** that gives all the facts. (Our forty-second year—Est. 1898.) U. S. School of Music, 2942 Brunswick Bldg., N. Y. C., N. Y.

### SEND FOR FREE BOOKLET



● You'll open your eyes when you find how quickly and easily you can learn to play your favorite instrument. Don't doubt it! Decide. Send for the fascinating illustrated booklet that answers all your questions; that explains how easily and quickly you can learn your favorite instrument as thousands of others have done. If interested, mail the coupon. NOW. (Instruments supplied when needed, cash or credit.)

\*Actual pupil's names on request.  
Pictures by professional models.

U. S. SCHOOL OF MUSIC  
2942 Brunswick Bldg., New York City, N. Y.

I am interested in music study, particularly in the instrument checked below. Please send me your free illustrated booklet, "How to Learn Music at Home."

Piano  
Viola  
Guitar  
Piano Accordion  
Piano Accordion  
Saxophone  
Cello

Hawaiian Guitar  
Banjo  
Mandolin  
Ukulele  
Cornet  
Trumpet  
Harp

Clarinet  
Trombone  
Flute  
Piccolo  
Organ  
Drums and Traps  
Modern Elementary Harmony  
Voice Culture

Name..... Have You..... This Instru?.....

Address.....

City..... State.....



# A Money-Making Opportunity for Men of Character

EXCLUSIVE FRANCHISE FOR  
AN INVENTION EXPECTED TO REPLACE  
A MULTI-MILLION-DOLLAR INDUSTRY

Costly Work Formerly  
"Sent Out" by Business Men  
Now Done by Themselves  
at a Fraction of the Expense

This is a call for men everywhere to handle exclusive agency for one of the most unique business inventions of the day.

Forty years ago the horic and buggy business was supreme—today almost extinct. Twenty years ago the phonograph industry ran into many millions—today practically a relic. Only a comparatively few foresighted men saw the fortunes ahead in the automobile and the radio. Yet irresistible waves of public buying swept these men to fortune, and sent the buggy and the phonograph into the discard. So are great successes made by men able to detect the shift in public favor from one industry to another.

Now another change is taking place. An old established industry—an integral and important part of the nation's structure—in which millions of dollars change hands every year—is in thousands of ways being replaced by a truly astonishing, simple invention which does the work better—more reliably—AND AT A COST OFTEN AS LOW AS 2% OF WHAT IS ORDINARILY PAID! It is not required very long for men who have taken over the rights to this valuable invention to do a remarkable business, and show earnings which in these times are almost unheard of for the average man.

Not a "Gadger"—  
Nor a "Knick-Knack"—

but a valuable, proved device which has been sold successfully by business novices as well as seasoned veterans.

Make no mistake—this is no novelty—no fancy creation which the inventor hopes to put on the market. You probably have seen nothing like it yet—perhaps never. It is the product of the existence of such a device—yet it has already been used by corporations of outstanding prominence—by dealers of great corporations—by their branches—by doctors, gas-venders, publishers—schools—dentists, etc., etc.—and by thousands of small business men. You don't have to convince a man that he should use an electric bulb to light his office instead of a gas lamp. Nor do you have to sell the same business man the idea that some day he may need something like this invention. The need is already there—the money is usually being spent right at that very moment—and the desirability of saving the present part of this expense is obvious immediately.

Some of the Savings  
You Can Show

You walk into an office and put down before your prospect a letter from a sales organization showing that they did work in their own office \$11 which formerly could have cost them over \$200. A building supply corporation pays over \$70, whereas the bill could have been for \$1,000! An automobile dealer pays our representative \$14, whereas the expense could have been over \$1,000. A department store has expense of \$68.00, possible that if they could the business being sold over \$2,000. And so on. We could not possibly list all cases like this. There are just a few of the many actual cases which we place in your hands to work with. Practically every line of business and every section of the country is represented by these field reports which banner across dazzling, convincing money-saving opportunities which hardly any business man can fail to understand.

## EARNINGS

One man in California earned over \$1,600 per month for three months—close to \$5,000 in 90 days' time. Another writes from Delaware—"Since I have been operating (just a little less than a month of actual selling) and not the full day at that, because I have been getting organized and had to spend at least half the day in the office; counting what I have sold outright and on trial, I have made just a little in excess of one thousand dollars profit for one month." A Connecticut man writes he has made \$55.00 in a single day's time. Texas man nets over \$300 in less than a week's time. Space does not permit mentioning here more than these few random cases. However, they are sufficient to indicate that the worthwhile future in this business is coupled with immediate earnings for the right kind of man. One man with us has already made over a thousand sales on which his earnings ran from \$5 to \$50 per sale and more. A great deal of this business was repeat business. Yet he had never done anything like this before coming with us. That is the kind of opportunity this business offers. The fact that this business has attracted to it such business men as former bankers, executives of businesses—men who demand only the highest type of opportunity and income—gives a fairly good picture of the kind of business this is. Our door is open, however, to the young man looking for the right field in which to make his start and develop his future.

Profits Typical of  
the Young, Growing Industry

Going into this business is not like selling something offered in every grocery, drug or department store. For instance, when you take a \$7.50 order, \$5.83 can be your share. On \$1,500 worth of business, your share can be \$1,167.00. The very first you get as your part of every dollar's worth of business you do is 67 cents—on ten dollars' worth \$6.70, on a hundred dollars' worth \$67.00—in other words two thirds of every order you get in store. Not only on the first order, but on repeat orders—and you have the opportunity of earning an even larger percentage.

This Business Has  
Nothing to Do With  
House to House Canvassing

Nor do you have to know anything about high-pressure selling. "Selling" is unnecessary in the ordinary sense of the word. Instead of hammering away at the customer and trying to "force" a sale, you make a dignified, business-like call, leave the installation—whatever size the customer says he will accept—at our risk, let the customer sell himself after the device is in and working. This does away with the need for pressure on the customer—it eliminates the baseness of trying to get the money before the customer has really convinced himself 100%. You simply tell what you offer, showing proof of success in that customer's particular line of business. This saves the inventory without a dollar's expense. It saves working at once. In a few short days, the installments should appear in your pocket—cash money to pay for the device, which you have already delivered, delivered in, at the same time. You then call back, collect your money. Nothing is so convincing as our offer to let results speak for themselves without risk to the customer! While others fail to get even a hearing, our men are making sales running into the hundreds. They have received the attention of the largest firms in the country, and sold to the smallest businesses by the thousands.

No Money Need Be Risked

in trying this business out. You can measure the possibilities and not be out a dollar. If you are looking for a business that is not unworkable—a business that is just coming into its own—on the upgrade, instead of the downgrade—a business that offers the buyer relief from a burdensome, but unavoidable expense—a business that has a prospect practically in every office, store, or factory into which you can get foot—regardless of size—that is a business that does not have any price cutting to contend with as other businesses do—that because you control the sales in exclusive territory is your own business—that pays more on some individual sales than many men make in a week and sometimes in a month's time—if such a business looks as if it is worth investigating, get in touch with us at once for the rights in your territory—don't delay—because the chances are that if you do wait, someone else will have written to us in the meantime—and if it turns out that you were the better man—we'd both be sorry. So for convenience, we'll copy below—but send it right away—we write if you wish. But do it now. Address

F. B. ARMSTRONG, President  
Dept. 4047B, Mobile, Ala.

RUSH FOR EXCLUSIVE  
TERRITORY PROPOSITION

F. B. ARMSTRONG, Pres., Dept. 4047B, Mobile, Ala.  
Will call on you to see how best we can be installed on your proposition.

Name.....  
Street or P.O. ....  
City.....  
State.....

# THE SWAP COLUMN

Here's where you can exchange something you have but don't want for something someone else has that you do want. This is a **FREE** service.

Limit your request to 25 words. No goods for sale listed, nor requests concerning firearms or any illegal article.

**IMPORTANT:** No "swaps" of back magazine issues are listed. This rule has been adopted to safeguard the health of our readers. Back numbers of magazines are known disease-carriers.

Type or hand-print clearly in submitting announcements. **THRILLING WONDER STORIES** will not be responsible for losses sustained. Make plain just what you have and what you want to "swap" it for. Enclose a clipping of this announcement with your request. Address: Swap Column, **THRILLING WONDER STORIES**, 22 West 48th Street, New York, N. Y.

United States stamps for foreign stamps. Will exchange stamp for stamp. H. C. Hoffpover, 3319 Clinton Drive, Houston, Texas.

Send 200 canceled or uncanceled stamps and receive same amount of mine. More you send, the more you'll get. Morris A. Mason, 1134 So. Sheffield Avenue, Indianapolis, Indiana.

Will trade harmonica with pamphlet on playing and other items I have for camera, telescope or what have you? Bernard Katz, 515 West 143rd Street, New York City, New York.

Have a set of orchestra bells, a guitar and lots of radio parts. Also a fair stamp collection. Would like a 300 lb. set of bar bells. Communicate with Howard Scherer, 461 Ringwood Avenue, Pompton Lakes, New Jersey.

Want correspondents to exchange stamps and stamp news. Have plenty of coronations. Edwin Russell, 87 Osborne Road, Southampton, England.

Will swap 75 different foreign stamps for yours. G. E. Karres, 531 Aetna Street, Salem, Ohio.

Bass violin wanted. Offer good camera. R. S. Smith, Cedar Street, Holt, Michigan.

Will exchange first day covers as issued, and stamps. Warren Carter, 203 Kentucky Avenue, Tipton, Indiana.

I have courses in ventriloquism and will exchange these and a 60X telescope for a sun lamp, typewriter, boxing course or? Henry Rutherford, Madison Street, Troy, Alabama.

Send for my list of stamps. I want Indian head cents, flying eagle cents. Charles Hoffmaster, Jr., 1218 Elm Street, Reading, Pennsylvania.

Would like musical instrument, writing course, books, or? Have physical culture course. Howard L. Neal, Grayling, Michigan.

Have Stradivarius model violin with patent head, no case, bow without hair, otherwise complete. Make offers in stamps, or? Roy Jewell, Jr., Rt. 4, Box 52, Gonzales, Texas.

Have antique ship model and radio parts. Will swap for American radio parts. Jack S. Taylor, 13 Winslow Road, Eccleshill, Bradford, Yorks, England.

Offering a brand new moving picture camera, radio parts, power amplifier, small radios and microphones. Want to trade for motorcycle, wrecked or in any condition, motorcycle parts, motors and outboard motor. All letters answered. E. J. France, Jr., % Leach Radio Service, Mt. Airy, North Carolina.

Want antique goblets, and other antique glass. Have 2,000 different postcards about half foreign to exchange. W. Boville, 3410 Lee, Greenville, Texas.

Will swap stamps up to 100. Australian or foreign. John Tilton, 98 Beach Street, Coogee, Sydney, Australia.

I want United States cancelled stamps, first day covers, special seals and poster stamps, postmarks, book match covers and novelty salt and pepper shakers. And you? Mary B. Riley, General Delivery, Downey, California.

Trade hand press outfit for? My list for yours. A. Von Bell, 1120 East 25th, Winston-Salem, North Carolina.

## Our Graduates

Think of It! **Run 47% of ALL the Identification Bureaus of America!**

Send for complete list of our 600 Bureaus where our graduates have been placed in good positions as

## FINGERPRINT EXPERTS

Then write the nearest Bureau and learn what our graduates think of us! We have space here to list only a FEW of these more than 600 institutions, so be sure to send for the complete list!



State of Michigan  
State of Washington  
State of Massachusetts  
State of Illinois

State of Idaho  
State of Colorado  
State of Iowa  
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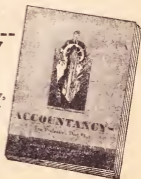
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By **JOHN COLEMAN BURROUGHS**  
and **HULBERT BURROUGHS**

*Authors of "The Man Without a World," etc.*

### CHAPTER I

#### *Son of the Stars*

**A** MYSTERY ship drifted silently through the dark clouds above the purple planet. The triple moons of Nova Terra bathed the giant craft in eerie light as she flew into open spaces across the sullen sky.

On the ground below two men watched the sombre vessel through powerful telectroscopic binoculars. Here was an airship that could not be

—yet was! A moment later it vanished, consumed by gloomy night and darker clouds.

Impulsively, the older, white-bearded man flung a powerful rifle to his shoulder. Three fiery blasts ripped out from his Zuick gun toward the spot where the vessel had disappeared. The echoes came back from the clouds and the hills, reverberating above the noise of the everlasting thunder.

"It's no use, Rador!" cried the other, a clear-eyed youth with jet-black hair and fighting shoulders. "They've

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*Living animated "hands" tottered along on tiny, shrunken legs*

## Beings From Beyond the Stars Hurl Jovian

gone, who or whatever they are!" He broke into a run, covering with long easy strides the smooth and jagged surfaces of glass that composed the ground beneath his feet.

"Let's hope our men at that outpost are safe!" the youth flung back to Rador.

The older man took out after the other.

"Death rides in that ship, Mal, every time it cruises out of the clouds near Arkadia—death descending closer to us every time. Heaven knows what happens to others of our people who vanish!"

In spite of his years Rador kept close to the flying metal-shod heels of Mal Mandarck, II, as they raced toward the outpost buildings of Lightning Shaft 13. The great hollow metal rod rose majestically out of its massive concrete base and shot straight up into the clouds for two thousand feet. Down the lightning shaft's outer surfaces flowed continually the deadly charges that it lured from the super-charged atmosphere of the purple planet. Charges that forever threatened the lives of the Arkians—descendants of the only survivors of a lost Earth.

**S**IGHT of that shaft still standing pumped hope into Mal; but the lonely dark outbuildings filled him with dread.

"It's there yet, boy! By God, it's still up!" shouted Rador as the outlines of the shaft grew clearer.

"That ship hasn't molested one of these rods in two months, Rador," said Mal. "That means we'll be two months older when they finally decide to crumble our last shaft and the lightning blows us into atomic bits!"

The outpost was still several hundred yards away. Unconsciously they slowed down their pace, some queer sense warning them that all was not well. Mechanically Rador jerked fresh shells into his rifle. Mal's hand crept to the handle of his father's gold-mounted space gun.

Like his father before him, the man without a world, Mal Mandark had

lived for his people. It was a Mandark who had led that little band of scientists and picked youth away from the doomed Earth in the great *Ark of Space*. After two hundred and twenty years the *Ark* had found a planet in the system of the giant sun Sirius. But to land meant death—death from titanic bolts of lightning that constantly struck the planet.

Mal's father had made it possible for the *Ark* to land. He had anchored a giant lightning conductor chain upon Nova Terra's surface, a chain held aloft by a great mechanical kite. Through this conductor unequal static charges found release, rendering safe a small area surrounding the chain. The *Ark* landed, but Mal's father was electrocuted while anchoring the chain. He had been born in space and died in space—a man without a world.

**U**NDER Rador's leadership the Arkians had built permanent lightning rods that insulated the air and ground for a considerable area around each one. With shafts erected at suitable distances so that their protective areas partly overlapped, the Arkians were able to live and work in perfect safety from the deadly blasts of lightning that continually shot from the electrically super-charged storm clouds enveloping the entire planet.

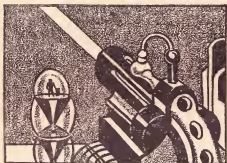
Beyond the precious zones of safety no Arkian dared venture. Their un-insulated planes forbade exploring the surface of Nova Terra. What lay beyond their boundaries no one knew. The unusual penetrating power of Nova Terra's lightning had thus far been too much for Arkadia's learned scientist, Professor Mapeswitch. His failure to perfect suitable insulation for their planes had kept them well within the insulated air close to home.

Their gardens and livestock, carefully brought from Earth, kept them well fed. There had been few worries. As the years went by only the more curious speculated about what lay beyond Arkadian boundaries. Life was too peaceful and happy to ponder much over such things.

# Holocaust Into the World of Nova Terra!

But one day seven of their huge lightning rods thundered to the ground, demolished. Caretakers at the shafts had vanished. Farmers nearby told of seeing a giant air-craft disappear in the clouds following the crash.

Mal Mandark, II was assigned command of a company detailed to guard the remaining shafts. Fighting planes patrolled within the insulated bound-



aries. But the mystery ship had not appeared again until now.

**T**ONIGHT Mal and Rador had been far afield with a cosmic ray mineralogist seeking more of the precious Nova metal to replace the fallen shafts, for Nova metal could not be re-smelted or re-cast a second time. As usual their search was fruitless. They were returning toward Arkadia when the mystery ship disappeared in the black clouds above Lightning Shaft 13.

"They're gone, Mal," said Rador as they reached the dark lightning rod outpost. "Vanished, like the others!" Old Rador's voice was tense and weary.

"Look here, Rador!" Mal was down, his face close to the ground. Tracks of the guards showed plainly in the soft powdered glass.

"Great Galaxies, boy, it can't be!" exclaimed Rador, kneeling down. "All these footprints just stop—in the middle of smooth, flat ground! That can mean only one thing—"

"Right!" snapped Mal, grimly. "It means that Major Roto, Professor Mapeswitch and the other men were snatched into space!"

Mal felt a helplessness for a moment, standing there in the ever-moving shadow of the giant lightning shaft. He came from a fighting race. But how could he fight against a power that could crumble ships, demolish lightning rods, scoop up his soldiers into space?

Across the plain to the southeast Mal could see the twinkling lights of Arkadia.

When all the lightning shafts had crumbled, this last little group of Earth-race descendants would vanish forever.

Mal heard Rador speak softly.

"In ten years, Mal, our people, and you and I, will all be gone—regardless of the mystery ship."

Mal looked up, puzzled, as the old engineer continued.

"I've never told our people," he said, "but my continued analyses has shown me that the metal composing the lightning rods is gradually disintegrating. The tremendous electrical charges that flow down the shafts from the supercharged atmosphere are slowly carrying away ions and changing the atomic structure within the metallic molecules. My calculations give the Arkians only ten years before their lightning shafts become entirely useless."

At these last words Mal's hand shot out, jerked Rador back into the protecting shade of the great shaft. On the ground ahead the moonlight was suddenly blotted.

Toward them across the plain moved a gigantic shadow.

"It's coming back!" whispered the young Arkian, peering into the sky.

Motionless as the shaft above them, the two men stood watching the sombre hulk of a huge airship moving toward them.

"It's coming back to finish the job!" said Rador tensely. "They're after this shaft! And if they destroy it we'll be killed by the lightning!"

Mal's thoughts were racing. A grim, daring idea had seized his fancy.

"The lightning shafts on all sides of this one have been crumbled—remember, Rador?" he reminded. The



old scientist nodded as Mal snapped out his next words.

"Less than a mile away on either side are Shafts Eleven and Fifteen. We have a slight chance to reach those zones of safety before this shaft goes down. If we set out in opposite directions, one of us might make it!"

"You're right, Mal," agreed Rador, "but if only one of us gets through, I hope it's you. I'm getting too old—"

"The ship's dropping lower," said Mal, "we'd better be off. You hoof it for Eleven—I'll take the other."

For a long second the two Arkians gripped hands. Then Mal turned and ran, loosening his gun in its holster. Rador set out in the opposite direction.

**O**NE hundred yards away Mal halted behind a massive outcropping of emerald glass that jutted its grotesque head out of the purple plain. He scrambled to the top of the jagged crag.

The craft was nosing down toward the middle of the lightning shaft. Mal knew that in a few seconds the shaft would crumble. One hundred thousand tons of metal would collapse in a thundering heap. The surrounding air and ground, no longer insulated, would be open targets for the lightning blasts that would follow. He and Rador would be snuffed out in no time.

Mal pulled the gun at his hip. Steadily, he poured a solid stream of electronic ether rays into the giant hulk of the mystery vessel. He hoped only to delay it and give Rador time to reach the safety of the next lightning shaft.

His other idea was part of a bold plan.

The youth sheathed his gun and smiled. The bow of the craft was turning slowly in his direction. Then things began happening uncannily fast!

Lightning Shaft 13 began to crumble from the top downward, like a melting candle speeded up a thousand times! With a deafening, groundshaking roar the once solid shaft settled down on itself to form a truncated cone of metallic dust.

The outpost buildings were completely buried.

The concussion hurled Mal off his glass perch, spun him over the ground. For a second he lay there in the deathly, ominous silence, gasping, trying to breathe.

The first blast of lightning struck one hundred feet from Mal on the pinnacle where he had been standing. It sent whistling boulders of glass and ugly, jagged crags of silicate shrieking by his ears. When the frightened air rushed in to fill the gaping hole in its side, Mal was sucked along the ground, rolling and bouncing like a piece of cork in a cyclone. The thunder pounded at his ears, shook him until his bones rattled.

Two more searing blasts cracked in rapid succession, fifty feet away. And then Mal opened his eyes to see the ground speeding away from him a hundred feet below.

Dully he realized his body was hurtling upward blasted high by the uprushing cyclone of air. In a second he would be starting down again. Mal closed his eyes.

**F**OR horrible seconds he waited. Would his body never stop in that dizzy rise? If he could only lose consciousness! That would make the descent much easier. He relaxed and, unwittingly, let his father's gun slip from his fingers.

Suddenly Mal knew he was either dead or dreaming, that he would never start downward. A tremendous unseen force had caught him in mid-air, settled down over his limbs. Like an electric shock, it enveloped his entire body. He was being pulled into space! So his plan had worked. The mystery ship had spotted him—and he was "vanishing," as his friends had vanished.

Mal opened his eyes to see utter darkness. He felt extreme cold, and then he shot out of the dark void into a dimly lighted chamber.

Something slammed beneath him and he once more stood upon his own feet.

The vacuous eye of a gigantic rifle stared at him out of the gloom—a foot from his face!

## CHAPTER II

*Invisible Power*

**I**NSTINCTIVELY Mal ducked, leaped to one side; but the cavernous muzzle clung to him like a shadow. He thought he saw a ghostly face in the slit of the domed gun-turret. Again that unseen force shackled his muscles. It thrust him irresistibly into a narrow doorway through a long cylindrical corridor of gleaming copper walls. Tiny openings in the tunnel-like walls gave Mal the feeling that unseen eyes were watching him. Once he shot a glance over his shoulder. The gun was still on him.

At the far end of the long corridor the blank wall slid noiselessly upward. Beyond was gloomy darkness. Moving forms sprang into the shadows.

A sudden increase of the force at his back sent Mal sprawling into the room. The heavy door dropped behind him. He was left alone in a deathly black silence.

Shakily, out of the darkness, came a familiar voice.

"Who's there?"

"Professor!" Mal exclaimed.

"Great Scott, Captain Mandark! Have you got you too?"

"They've got me all right," replied Mal. "Whoever they are!"

"Hm-m," commented Professor Mapeswitch. "Extremely interesting." The room suddenly glowed with a soft weak light.

Arkadia's learned Professor Mapeswitch, thin, bald, stooped, had struck a match. The entire crew of the wrecked lightning rod outpost was there—fifteen of them.

"Where's Roto?" exclaimed Mal.

"We think another craft got him, Captain," replied thin, haggard little Corporal McWeety. "Two mystery ships were circling above our outpost." Mal noted that all the guards had been disarmed.

"Have you seen our captors yet?" he asked.

The professor frowned, scratched his bald head with an index finger.

"We have been captured and disarmed without once seeing a single living creature other than ourselves. Extremely interesting."

"I could have sworn I saw a face in that gun-turret," exclaimed Mal.

"There's mystery and evil aboard this ship, Captain," whispered the little corporal, "and I don't like it!"

"I think that rifle we were caught with," said Mal, "is a powerful high frequency charger and electromagnet combined. In some remarkable way it is able to attract living flesh like a magnet attracts metal."

"You're right, my boy!" exclaimed the professor. Lighting another match and adjusting his glasses he drew a crude diagram in the dust on the floor. "With a rifle here, consisting of two condensers, it would be possible, in the supercharged atmosphere of Nova Terra, to aim a positive electrical charge at a body on the ground. This positive charge could be of very high frequency and high voltage, but of low enough amperage so as not to electrocute. With the living body on the ground thus charged positively, the strong negative charge in the other condenser on the rifle would simply pull the living flesh up to it."

"That must be it," agreed Mal. "And the whole set-up depends on the remarkable harnessing of Nova Terra's lighting."

After hours of waiting in that tiny windowless room the heavy door opened. Instantly the men were on their feet.

Once more the invisible magnetic force shackled them. They were forced through dark tubular passages, across great rooms housing the intricate control mechanism of the ship.

**T**HEY came to an abrupt halt in the center of a large well-lighted chamber. On every side was still further machinery, great glass cylinders, huge storage batteries. Overhead was a web-like maze of wires. Massive cables jutted out of walls, ran to the huge square and cylindrical glass condensers that loomed above their heads.

"With an arrangement like this," breathed the myopic professor, "with

condenser accumulators of unbelievably high dielectric capacity, they can pull in and actually store the unthinkable power of Nova Terra's lightning."

"Lightning Men!" mused Mal. "No wonder they could crumble our lightning shafts into sandpiles."

"That high-static ultra-short wave machine could do it!" cried the professor. "And Mal," he exclaimed, "look at that hook-up over there! See how they've insulated the ship against lightning blasts."

"Try to remember it," said Mal. "So you can use it for our ships. They could certainly use some insulation."

"Extremely interesting," mused the professor. "I'll make a note of this."

"Notes won't do any good now!" gulped McWeety. "If you ask me, we're done for! I don't like—"

A section of the metal floor in front of them suddenly rolled aside. The Arkians gasped.

They were standing on the edge of space. Two thousand feet below on the shore of a red sea rose the giant copper domes of twin cities. Sirius, the rising sun, sent down crimson shafts of light to mingle with the myriad reflections of distant lightning blasts that danced over the domes.

Spearlike minarets of varying heights rose from the hemispheres into the turbulent clouds above, giving the cities the appearance of two giant sea-urchins washed from the restless ocean. It was awe-inspiring in its sheer beauty.

"Look out!" came Mal's instinctive shout of warning as he felt the floor give way beneath his feet. For a horrible clammy moment they seemed suspended in mid-air. Then they hurtled down through cold space—toward the twin domes two thousand feet below!

Once again Mal felt that invisible power tug at his body, slow down his dizzy descent. That diabolical magnet gun was controlling their fall, delivering them to a fate he could not even guess.

As they fell, Mal studied the twin domes and the long slender minarets shooting from them. The later were apparently a form of lightning rod.

Each dome, obviously solid metal, must be for further insulation and for the purpose of grounding the charges on all sides of the city beneath it. Mal was certain they were composed of the precious Nova metal.

"What vast mines of ore must lie beneath those domes," thought Mal. "And what a haven for the doomed Arkians."

A moment later the falling Arkians shot through an opening in the nearer hemisphere and found themselves standing on solid ground within the city. Immediately another magnetic source gripped them, raised them a few inches above the ground, and sped them forward.

About them towered buildings of weird and fantastic design. Through winding deserted streets they moved, into dark, dimly lighted corridors and empty rooms. The dust of ages had settled over all. Several times they caught fleeting glimpses of moving distorted things in the denser gloom. It was a city through which moved ancient memories. All was mystery and utter silence.

"An amazing innovation, these magnetic avenues," commented the professor, observing his legs dangling beneath him as they sped along. "Makes city travel quite effortless and a pleasure. Very ingenious."

**A**HEAD loomed a dark tunnel opening. The corporal gasped.

"If we go in that opening we're done for—I feel it in my bones!" McWeety sought to break free from the invisible bonds that held him. But it was like fighting the onward sweep of a raging torrent.

Once into the black opening the men could see nothing. Mal sensed a winding, twisting route. Several times they passed faintly luminous branches to the dark tunnel.

"These magnetic 'avenues,'" commented the professor, "are obviously laid out to comply generally with the lines of force flowing between the poles of a very large magnet."

Suddenly they burst into a brilliantly lighted room.

"Great Void!" gasped Mal when he could adjust his eyes to the brilliant

light that almost blinded him.

Before them was a gigantic laboratory and auditorium combined. The electrical mechanism on the mystery ship was as nothing compared to this intricate maze of wires, conduits, batteries, dynamos, and insulators. A fantastic assortment of other weird apparatus challenging the wildest dreams occupied every foot of the stagelike floor at one end of the auditorium. The rest of the huge chamber was given over to tier upon tier of seats—thousands of them.

Occupying central positions in the vast array of scientific equipment were two gunlike pieces that towered considerably above the others. It was toward one of these two instruments that the Arkians were being led.

Below the gunlike instrument along a massive control panel several rectangular glass chambers stood upright in line against the wall.

"Glass coffins!" murmured McWeety, gazing wide-eyed at the chambers.

"That control board," whispered Mal to the professor, "and all those dials and levers—that means there must be someone or something to operate—"

"Great Sirius—look!" cried the corporal.

Out of the shadows behind the stage came an astounding swarm of living things. Grotesquely distorted creatures they were, like the brain spawn of a surrealist's nightmare. Living, animated "hands" tottered along on tiny, shrunken legs.

Mal rubbed his eyes. It was as if someone had cut off a human hand, enlarged it to the size of a man, given it a couple of inadequate legs, and then imbued it with life. But no two of the creatures were of the same shape. Some had two massive arms and hands with no visible body, head or legs. They swung along on their knuckles. Others were all legs with no arms or heads.

Like a swarm of insects they climbed, swung, and leaped to what were apparently pre-arranged positions at the various levers and wheels of the control mechanism. In specially designed seats the misshapen horde

commenced their work. As they manipulated the mechanism in startling efficient manner, the professor leaned over to Mal.

"Good heavens!" he exclaimed. "These things can't be the—er, Lightning Men!"

"No, I think not," whispered Mal. "It's my guess we haven't met the rulers of the city yet."

"It's amazing the way those creatures work," gasped the professor. "It looks as if they'd been specially created as 'hands' for a specific function. An astounding example, no doubt, of evolutionary over-specialization."

One at a time the Arkians were placed before a large apparatus that immediately caught the professor's fancy.

"It's some form of ultra-short ray machine," he whispered to Mal. "Unless I'm greatly mistaken they're either studying us or photographing us by short wave."

The next moment each of the Arkians was magnetically thrust into one of the coffinlike glass chambers standing upright against the wall. Mal heard the bolt slip into place and he was locked in his crypt. Quickly his eyes wandered to the glass chamber next to his. He caught his breath at the astonishing sight.

"Lord!" he exclaimed half aloud. "It can't be!"

### CHAPTER III

#### *Maid of Nova Terra*

**A** GIRL was studying Mal with wide, puzzled eyes. A mass of lustrous black hair fell down on well-rounded shoulders. She was dressed not as the women of Arkadia, but in strange trappings of blue silver. Her tiny feet were shod in sandals of gold.

It was incredible—another race of human beings on a planet fifty-two trillion miles from the lost Earth! Could it be, thought Mal, that upon any planet in the Universe wherever life exists, evolution has but a single goal—man?

He smiled and the girl returned it warmly. Then her body suddenly stiffened. Mal's eyes flashed to the great funnel-shaped gun towering above them. A group of human "hands" had manned the huge machine, whatever it was, aiming the device straight at the girl's glass cell. A heavy dynamo at its base thrummed dismally. Red sparks spat from the armatures. The girl flung a brave, fleeting look to Mal. Then her body became rigid.

The huge gun poured forth a shimmering, miragelike stream of waves. The girl's arms raised slowly above her head, stretched horribly—grew to three times their normal length, moving around to grow from the back of her neck.

The beautiful face wrinkled, the soft skin grew furrowed. Her head was actually shrinking! Suddenly it collapsed, shriveled to the size of an orange. The arms slowly fused together, sagged forward over the tiny cranium like the drooping branches of a tree.

Where the hands had been was now a single rakelike appendage with fifty tentacular fingers. Heavy muscles swelled upon the back to support this great arching arm. Relentlessly the stream of quivering waves poured from the gun, moved over the girl's entire body until there vanished all resemblance to the beautiful woman she had been.

As suddenly as it commenced, the ordeal ended. The creature that had been the girl relaxed, a living, utterly transformed thing.

Mal's body tensed spasmodically. An electric shock seared through his body.

The great gun was aiming at him!

A sensation of alternate swelling and shrinking tore at his flesh. Every cell in his body and brain was being bombarded, seemingly ripped from its structure.

How clearly his mind was working, thought Mal. No pain. Diabolically clever fiends, those Lightning Men. They were master electrical wizards, tearing protons and electrons from their orbits, fitting them into some ghastly preconceived pattern, half human, half monster. Yes, that was it—

a pattern from that ultra-short ray machine.

Mal's head was shrinking. His arms grew longer and stouter, his shoulders hunched forward, and his legs swelled. Finally his hands and feet changed, developed huge suction discs on palms and soles.

In a moment his metamorphosis was complete. The distorted creatures operating the transformation device swung the huge gun toward the next glass cell.

In the thick glass of the chamber Mal saw his reflection—a long-armed, massive-legged creature with a saddle-like hump on his back. Instinctively now he had the urge to walk on all fours, as if he were a beast of burden. Suddenly he realized that all those distorted, misshapen creatures—the living "hands," the "legs," the "arms," all had once been normal human beings like himself and that girl.

**M**AL looked quickly to the adjoining cell. But the girl was gone.

Hours later, the electromagnetism force gripped him again. He was deposited into a cold dimly lighted dungeon. Dark shapeless things stirred in the gloom. Something was coming toward him from the pulsing, distorted mass of shadows.

Mal clenched his fists. Straight toward him came a massive "hand," advancing on tiny legs.

"Mal!" came a small voice. "Mal!" it sounded again. "Don't you recognize me?" It stood before him, a living "hand" whose tiny face just below the "wrist" and above the inadequate legs peered up at Mal. The Arkian commander gasped.

"Great Sirius—Roto! You?"

"Galactic goose-pimples! But I'm glad you're here, Mal!" exclaimed the faithful little Arkian major.

"Void, what a nightmare!" breathed Mal.

Hopping along on one splay-footed leg, a single arm growing from the top of its head, came another creature.

"Quite ingenious—quite ingenious!" came a familiar voice from the pogo-stick, one-legged man-thing.

"I don't like this," whimpered the corporal, rolling along.

And so they came out of the shadows, pitifully, and surrounded Mal—all the former Arkians that had been captured and transformed.

"It's unbelievable!" breathed Mal, stunned.

"It's true all right," piped Roto. "But wait'll you see the real brains of this city."

"You've seen them, Roto — the Lightning Men?"

"Yeah — they're horrible!" Roto shuddered. "But smart as whips—world's champion work-dodgers is what they are. They hate work so much that they spend their lives catching other Nova Terrans and changing them into slaves to do all their work for them. Every slave is transformed into a shape that'll make him the most efficient possible 'machine' for his particular job. You, Mal, are a 'horse,' made to carry a Lightning Man in that saddle hump on your back. Those suction discs on your hands and feet keep you from falling down; they cling to any kind of surface. I'm made especially as a 'hand' to operate more efficiently one of their smaller airships."

"And I'm to dust the king's books!" exclaimed the professor, scratching with a single dust-mop hand all that remained of his learned brow.

Mal surveyed the pitifully distorted creatures that were his friends. Slashing into his mind was the horrible realization that a similar fate awaited

all his people in Arkadia.

"Professor, we've got to get out of here! We can't let this happen to Rador and the rest. Do you think there's any chance of our bodies being changed back again into our original forms?"

"I have little doubt the process can be reversed," said the professor. "It merely consists of electromagnetically increasing or decreasing tissue growth in specific areas of the body. After photographing our cellular arrangements by some type of short wave device, and with the resulting photographic plates as guides, each of us was transformed according to a pre-designed pattern.

"The funnel-shaped gun in the laboratory fired an electromagnetic beam of controlled wave length at certain portions of our bodies. The effect of this beam is to increase or decrease the valence or attractive force of the carbon atoms within the organic compounds comprising the tissue cells of our bodies. Thus the other atoms held in the organic chain or ring assume greater or lesser distances from the central carbon atom. Inasmuch as molecules compose each tissue cell, then the consequent result of the beam is expansion or contraction of tissue cells. It's really quite ingenious."

Out of the dark shadows came a strangely formed slave. Mal in-

[Turn page]

**MR. WRIGHT  
FOUND OUT  
HE WAS  
WRONG!**



**MR. WRIGHT:** Gee, this stuff is awful! Why do all laxatives taste so bad?



**MRS. WRIGHT:** All of them don't. Ex-Lax tastes like delicious chocolate.



**MR. W.:** Ex-Lax? That's O.K. for you and Junior, but I need something stronger!



**MRS. W.:** No, you don't! Ex-Lax is just as effective as any bad-tasting cathartic.



**LATER**

**MR. W.:** I sure am glad I took your advice. It's Ex-Lax for me from now on.

**MRS. W.:** Yes, with Ex-Lax in the house we don't need any other laxative!

The action of Ex-Lax is thorough, yet *gentle*! No shock. No strain. No weakening after-effects. Just an easy, comfortable bowel movement that brings blessed relief. Try Ex-Lax the next time you need a laxative. It's good for every member of the family.

**10¢ and 25¢**



stantly recognized the girl he had seen transformed. Her soft, fluid voice, its tones familiar, spoke to him.

"She's warning you against trying to escape from the city of Sangorong," interpreted Roto. "It's death to try."

Mal looked his amazement and Roto grinned.

"I learned the language last night," he said. "I can understand and speak it, but I'm damned if I know why. Like everything else on this planet it's got something to do with electromagnetism or electricity. All you do is relax and think of the idea you want to put across. For some reason the exactly correct words or noises come to your tongue and you simply say them."

"That's been one of Rador's pet theories," murmured Mal. "That there are certain phonetically natural sounds for the ideas that are common to all thinking creatures."

**T**HE girl spoke again. Inexplicably, Mal now understood her.

"Since I was very young," she was saying, "my people have said that no one escapes who is once captured by the Lightning Men."

"Who are you?" asked Mal. "And where do you come from?" Uncannily Mal voiced the strange words.

Her shriveled lips parted in a smile. Somehow Mal could think only of the lovely woman she had been before that awful transformation.

"My name is Noovia, and my country lies within a protecting crater, far beyond the big ocean. Six days ago a terrific storm swept me to sea in my insulated flier. My fuel was gone and I came down to drift. Next morning I washed up on a strange shore where no lightning struck. I hid my ship and set out to find where I was. I soon beheld these twin cities, just as the Lightning Men discovered me. I was captured and brought here. That lazy beast Thego loves music. He had me recreated with these fifty fingers just to play his quintachord—it has fifty keys."

She was studying Mal.

"No, strange man, you cannot escape Sangorong. The walls, the tunnels—everywhere they have eyes and ears.

They know everything you say and think!"

"What do you mean?" asked Mal, puzzled.

"When you meet their ruler, King Thego, you'll find out. You'll see that these slaves are used for more than just work. What they really want is—"

A sound at the far side of the vault brought every eye to the heavy prison door. It had risen. A distorted slave was being pulled out of the room. Then the door closed.

"He'll soon know what the Lightning Men seek," whispered Noovia.

The only break in the following hours of intense silence and waiting was the occasional opening of the great door as a luckless slave was withdrawn into the blackness of the tunnel. As the heavy portal closed behind the last slave, Mal rose to his four legs.

Most of the slaves were asleep. Casually he moved to the wall next to the great portal and lay down. In two hours the door again opened. One of the slaves was being returned to the prison. As the gate slid downward Mal slipped quickly into the blackness beyond.

Immediately he felt the tug of magnetism upon him. He felt himself being transported through Stygian blackness. As he approached a faintly luminous tunnel intersection he thrust out a long arm. His suction cup hands clung tenaciously to the smooth metal surface. With an effort he pulled himself into the intersecting tunnel. He was out of the magnetic avenue. Ahead loomed an opening.

Cautiously, Mal peered into a cavernous dungeon. As far as he could see into the greenish luminosity, there were visible row upon row of coffin-like cells. Glass coffins, each with a man within it! But what men they were. Fully eight feet tall, perfectly proportioned. It just couldn't be! First Noovia, then these Earthlike creatures, identical except for size to a race that once lived upon a dead planet trillions of miles away. Yet here they were before his very eyes—apparently dead, yet their breathing chests told him they were not dead.

No other sign of life, no other sound relieved the awful stillness. It was a tomb of the living dead. Awed, Mal moved toward the nearest cell. The man in it was a handsome creature. Suddenly he realized that they were all identical in appearance. As the electric shock tensed his muscles, instinctively he drew back. And in that same instant from somewhere above a loud voice shattered the deathly silence.

"Stop, slave! Touch nothing!"

Mal leaped backward. Instantly that cursed electromagnetism had him. A door slid open. With a sickening rush he shot out of the cavernous ghost chamber. This time the current was far stronger. He was unable to combat it. Total darkness. A sudden glare of lights nearly blinded him.

It was the gigantic laboratory-auditorium where he and the others had been transformed. But now upon the great dais before the control panel sat an amazing creature. Thin, haggard, hardly real at all, the man's atrophied muscles clung to shrunken bones. Mal gasped. The wraithlike creature was actually translucent.

Under the black leather trappings that hung from the otherwise naked chest, pulsed the dim outlines of the man's internal organs. Mal could see the heart beating, the lungs expanding and contracting. Wide, coldly staring half-luminous green eyes glowed deep within hollow sockets. Veins and arteries beneath the translucent skin in the neck and face gave the sallow physiognomy an etched, half-dissected appearance. Weak, spindly legs dangled down from the massive chair that must once have held a giant of a man.

Here, then, must be King Thego, ruler of the Lightning Men of Sango-ron!

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## CHAPTER IV

### *The Memory Machine*

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**A**T Thego's side sat many lesser Lightning Men officials, all of the same disconcerting, colorless translucency. Innumerable slaves of

all manner of forms hovered in the background. Some were shaped like Mal—beasts of burden—actually carrying Lightning Men upon their backs. Other slaves tended their masters in different ways. One was scratching an official's back. Another reached into his master's pocket for some trivial object. Still another poor beast helped blow an official's nose.

"Lord!" thought Mal. "World's champion work-dodgers is right!"

Thego was studying Mal with his green, luminous eyes. Presently he spoke in a cold, hollow voice, and Mal could see the king's larynx within his throat move up and down with each word.

"For a slave to be apprehended within the sacred chamber of our ancestors," hissed Thego, "usually means death. But I want you for another purpose." Thego glanced at something a slave held up beside him.

"Your lightning-ray plate, showing the cellular arrangements within your mind and body," said Thego, "has just been brought to my attention. You may have what I've been looking for—may even contribute something to the greatness of the mighty Thego!"

"I am honored," replied Mal coldly.

"Ages ago," continued Thego, "our race consisted of both men and women, active and well muscled. But our women died off when we learned to incubate artificially only the males of our race. Then our scholars decided that material things have no value. They thought that true worth is found only in pure thought—in mind. We knew that natural evolution was developing man's mind, but at a pitifully slow rate. So we perfected a way to accelerate the evolutionary process.

"We are no longer shackled to the material world. Our specialized slaves perform all our gross material duties for the body. Thus were we launched well toward the realm of pure thought by the invention of the Micro-macro Cell Transformation machine, with which you are already familiar," said Thego, indicating Mal's specialized body.

"With this machine we can now acquire from various sources the Four Qualities necessary to carry out



man's evolution to a state of pure thought. Those men you saw encased in the sacred chamber are all great Lightning Men who have, after thousands of years, finally acquired all the Four Qualities. They have retired forever to the realm of infinite thought. That is their paradise. There they are able to project their minds at will throughout space. They are free to soar to unknown heights of pure thought, they can do and see and have anything their minds desire!" A wild, fanatical light shone in Thego's green eyes.

"But those men in the dungeon?" asked Mal. "They weren't like you. They are all well developed physically, not translucent."

"For ages our bodies were never touched by the sun," Thego explained. "All pigmentation vanished. Under the continual experimentation with cell transformation our body cells lost some of their electrical charge, ceased to be so closely knit. We became translucent. So now, before we begin the quest for infinite thought, we transform our bodies to the most perfect form possible."

"The Four Qualities you desire," asked Mal, engrossed by Thego's words, "what are they?"

"NO man normally possesses all," replied Thego. "We have found them in both Lightning Men and in rodents. Our search for the Four Qualities we want is relentless. We look for, first, Will Power—absolute control of mind and body; second, Control Over Death—Agelessness; third, Mental Telepathy; and fourth, Cosmic Vision—the ability to look forward and backward in time and space—to see the past, foretell the future.

"Whenever we capture a man we first tabulate him by means of the photo-molecucellular lightning-ray machine which clearly shows every cell and molecule in the body—even to the protons and electrons. With these lightning-ray plates as a guide we can alter a man's cellular arrangement to comply with any shape we wish. We merely improve on Nature's tendency toward over-special-

ization. We can transform him into a monstrosity, and even back to his original shape."

"You mean," interrupted Mal, "that you could transform me back again, to my normal shape?"

"Quite easily," replied Thego. "But that will be unnecessary." And Thego's eyes clung to Mal. "We have found that men possessing any one of these Four Qualities show this fact in their cellular arrangement and the strength of the minute electrical charges holding the body cells together.

"When we have carefully studied each lightning-ray plate in our files we know which of our captives is worth more to us than a mere slave. By means of the transformation machine and the instinct memory screen, we are able to take from the slaves who have it, the quality we want and incorporate it into one of our own people. Thus another Lightning Man advances a step further toward his long awaited paradise."

"And what happens to the slave?" said Mal tensely.

"He dies, of course," replied Thego calmly. "But what of it? A slave is nothing to the onward sweep of our evolution. We are supreme beings! All other life is made but to serve us! Just as you shall, Earthman, for we believe you possess the Fourth Quality that I need for my own Great Journey—Cosmic Vision! But to make absolutely certain that you have it," exclaimed Thego eagerly, "I shall put you through the instinct memory machine."

"What do you mean?" asked Mal, instantly wary.

Thego pointed to a large rectangular screen. "That's the instinct memory machine. It's one of our greatest inventions. With that we can retrace a man's memory, even trace the course of human evolution and show it in three-dimensional picture form on that screen." Thego paused. "Earthman, did you know that a portion of the human brain is composed of tiny microscopic brain cells arranged in specific memory patterns, each inherited from an ancestor?

"Yes, and each cell group retains the

actual memory of the ancestor from whom it was acquired. In other words, one portion of your brain is made up of connected nerve synapses that are an accumulation of the inherited cell arrangements throughout the entire course of evolution from the beginning of life on your planet. The memory screen is able to pick up and amplify the tiny currents of electricity oscillating from each brain cell and projects an image on the screen.

"We remember past events in our lifetimes because our brains can coordinate the minute electrical charges that each past event registers on our memory cell pattern. A few men with extremely powerful wills are able to control their thoughts and memories better than others. It usually shows on the screen. But the brain cannot—unaided—pick up the even more minute charges emanating from a more remote past—before our births. Our machine can do that!"

At the king's signal a swarm of slaves surrounded Mal. Electrodes were fastened to his wrists and temples. An electrical current surged through his body. Instantly, strangely, his memory became astoundingly vivid. Upon the instinct memory screen a three-dimensional scene suddenly flashed. It was a reflection of the very scene in the room. Mal saw himself, Thego, and the others. At first he thought it was a mirror. But in a moment the scene swiftly changed like the fading out and in of a motion picture image. Successively now flashed scenes of Mal's own life, in reverse sequence, back to the very time of his youth.

But there the astounding kaleidoscope did not stop. Events in his father's life, his grandfather's—back through the very take-off of the great *Ark of Space* from the Earth those 235 long years ago. And still the scenes kept coming as early Earth history unfolded itself.

"Enough!" cried Thego as he turned off the switch. A fanatical gleam of pleasure shone in the luminous green eyes. "You're the man for whom I've waited five hundred years! Never have I seen the Fourth so marvelously incorporated in one man. Now I shall

be able to make the Great Journey!"

**T**HEGO'S eyes gleamed brightly as he went on.

"Make no attempt to escape, Earthman. It is impossible. The rest of your race will be captured for they, too, may possess some of the Qualities. And tomorrow, before all the Lightning Men and slaves of Sangorong, I shall take from your brain the Fourth Quality that will set me free. Guards, take him away!"

Back within the prison again, Noovia, Roto, the professor and the Arkians eagerly approached Mal.

"Quickly!" said Mal. "There's no time to lose!"

Briefly he outlined what had happened to him and what was in store for them all in the morning.

"Thego is no madman," he told them. "He'll capture everyone in Arkadia unless we can thwart him before it's too late. But I've got a plan. It all hinges on the fact that the Lightning Men have been dependent on slaves for so long that they'd be absolutely helpless without them. Thego said that all the slaves would be in the ceremony chamber tomorrow. If we can deprive the Lightning Men of the services of their slaves—"

"I've got you!" shouted Roto enthusiastically. "We must get the slaves to revolt!"

"That's it," said Mal. "And to do it—" Noovia's hand suddenly pressed against Mal's lips.

"The walls," she whispered. "They hear." She handed Mal some paper and a writing implement. "It's safer to write than to speak."

And in the breathless silence of the cold prison cell, Mal hastily scribbled the plans that would spell either salvation or doom for the last remnants of the race of Earthmen.

"Because you and McWeety work in their ship hangar at night," wrote Mal to Roto, "you may have a chance to seize a ship tonight. If luck stays with you, try to fly back to Arkadia and Rador. Bring the entire Arkadian fleet back here. Have our ships fly within the insulated area surrounding the Lightning Men's craft that you'll be operating. We'll do our part

in the meantime. Tell Rador that it's our last chance, for in Sangorong our people will never have to fear the lightning again."

"Jiggers!" whispered Roto. "The door's opening—it's time for the night shift to go to the hangar. Come on, McWeety."

"Remember," Mal whispered as they started to leave, "we must succeed. Under the protection of this copper-domed city is the very home Arkadia has long wanted. It's our last chance!"

As the door closed behind Roto and McWeety, Mal turned to Noovia.

"If it works they'll be back in twelve hours to help us. Otherwise—" He shrugged, hopelessly.

Far into the night Mal, Noovia and the professor scribbled the plans for the revolt of the slaves of Sangorong. While Mal and the girl whispered until the late hours, Mal learned of her courage and deep belief in human freedom. His mind kept returning to that first moment he had seen her—a woman more beautiful than he had ever dreamed. Strangely now he wanted more than ever to make the revolt a success.

Early the next morning they were led into the great laboratory-ceremonial chamber. Thousands of Lightning Men and their slaves were there.

For nearly an hour they kept coming. Soon there was not an empty seat in the vast auditorium. At a signal from a Lightning Man on the stagelike dais the entire assemblage rose. From a side door, mounted upon a slave whose proportions were similar to Mal's, rode King Thego. The slaves deposited the ruler upon a magnificently decorated throne.

**MAL** grew tense. The time was at hand. All the slaves of the city were there. He glanced at the huge skylight high overhead.

"We can't wait for Roto," he whispered to Noovia. "It's now or never." His eyes were upon the thousands of slaves. "Now remember, after I grab Thego and leap to the throne with him, I'll yell to the slaves to revolt and threaten to kill Thego if the Lightning Men oppose us. But I want you, Noovia, as one of their own Nova Ter-

rans, to support my words. They'll be more apt to follow if they know you believe in me."

Noovia suddenly grabbed Mal's arm. "Look!" she gasped. Thego was signaling to the slaves manning the giant electro-magnet gun. Every other slave in the auditorium was suddenly jerked from his place beside his master and jammed into a small area at the far side of the laboratory. They were all held fast and helpless by the invisible bonds of electro-magnetism. Mal felt his own muscles stiffen to the shock. Something had gone wrong. Noovia shot him a puzzled, desperate glance.

A diabolical grin twisted Thego's cold, sallow face.

"I told you once, Earthman, that no one could escape Sangorong."

The coldness of lost hope, impending doom, gripped Mal. Thego had learned their plans. The walls did have ears—had overheard Roto's one spoken word—"revolt"—before they had taken to writing their plans.

Like a cornered animal Mal's eyes groped for some last avenue of escape. The professor, and Noovia, too, were helplessly shackled.

## CHAPTER V

### *Earthman's Lightning*

**TWO** husky slaves led Mal quickly to the foot of the great transformation mechanism. His mind raced madly. There had to be a way out before it would be too late. Once subjected to that ghastly process he knew he would be dead. Again his eyes sought the skylight. If only Rador would come. He was not afraid to die as his own father had done—sacrificing his life for his people. But to die uselessly, his friends still unprotected, their future hopeless—that was what he dreaded most.

Mal's eyes clung to the king. Pomposely Thego took his place in the adjoining glass cell. There was much ritual. The ceremony seemed very sacred. A fanatical fervor shook Thego's body. Mal could see the

king's heart beating faster.

Slave attendants fastened Mal to a slab in the glass cell. Electrodes were applied securely to his wrists and temples. He lay on his back. Thego and his cell were a scant five feet from Mal's. The king's was ornately designed. Overhead beyond the vast skylight were storm clouds and an occasional patch of the blue lightning-slashed sky he had learned to love so well. And in that same instant he recognized several tiny specks in the distance—a fleet of trim fighting ships!

Roto had got through! Rador was coming!

Thego must have seen them at the same moment. Quickly he issued orders to the attendant preparing him for the ceremony.

A crew of slaves swarmed over the giant electro-magnet gun towering above the stage. Its muzzle pointed toward an opening in the skylight. What ghastly trick could they be up to now, wondered Mal.

One of the advance ships of the Arkian fleet passed directly over the city, a swift two-man craft. The great magnet gun swung into action. Suddenly the Arkian ship faltered in mid-air, rose abruptly in elevation, out of control. Hurling upward at terrific speed, spiraling, twisting, it gained altitude until it was lost from sight in the clouds—catapulted away from the planet.

Mal was appalled. He realized what those fiendish Lightning Men were doing. They were inducing a repellent charge of electricity in the Arkian ships that would make them hurl away from the similarly charged planet, hurtle far out into the chasm of interstellar space.

And now the second Arkian ship zoomed over the city. Again the magnet gun vibrated. As if caught in a Gargantuan cyclonic updraft the tiny ship whirled upward into the clouds of the upper atmosphere and disappeared forever from sight. Mal tugged at the bonds that held him. In the distance he could see the main body of Rador's fleet. As the last ship hurled into space, Rador swung his fleet about and retreated from view.

Thego scoffed at their efforts.

"Fools! I told you the Sangorongy are supreme beings." He waved his hand. "On with the ceremony!" he commanded.

Thego was quickly sealed into the glass coffinlike cell in which he would spend the rest of eternity. Wires connecting Mal and Thego were carefully adjusted. They led to the great three-dimensional instinct memory screen that would be used to check the progress of the transmission of Mal's "evolutionary memory" into the brain of Thego himself.

Mal looked at the slaves. Noovia was crying. The professor seemed lost in the maze of interesting scientific procedure attendant to the ceremony. Even in the face of death Mal could not suppress a wan smile at his old friend.

An electric tremor again gripped his body. A scene flashed upon the screen, a three-dimensional picture of the laboratory, all that Mal himself had just seen in the room. Mal could feel Thego's mind controlling the process. His brain worked frantically. Pounding in his head were words Thego had spoken yesterday: "Some men—powerful wills—control thoughts—control—control!" Great beads of sweat glistened on his forehead. The veins on his neck and temples bulged. He must concentrate on his plan, control the thoughts of his mind.

**S**LOWLY the screen image changed. A startled murmur arose from the huge audience. Upon the screen they saw an image of the Earthman rising from the glass cell in which he was but just sealed. But yet they could see him still actually inside the glass cell. They were completely awed. No longer could their eyes leave the screen.

The televised figure of the Earthman bounded to the top of the king's dais.

"Slaves of Sangorongy!" shouted Mal's voice from the screen image. "Would you fight to gain freedom, to have again the bodies with which you were born? Revolt and you can return to your own countries! Your

masters are helpless if you refuse to serve them. Follow me! Watch!"

Upon the screen they saw Mal hurl Thego bodily from his throne. They saw images of themselves taking up the cry, turning upon their masters. They saw themselves finally free, their masters lying helpless upon the floor. The revolt was complete. Mal's image leaped forward, started to re-transform them all back into their own original shapes.

It was extremely realistic, that screen image of Mal's controlled thoughts. Shouts arose from the distorted mass of humanity.

"The Earthman is right!" Noovia shouted. "He has shown you what we can do—that we can be free again! Let's follow a great leader!"

A mighty cry arose from the slave ranks. The crew of the magnet gun swung from their positions. In a great forward surge they walked, crawled, leaped and rolled toward Mal. Noovia's fingers worked rapidly as she freed Mal from his cell.

"Thank Sirius you're safe!" she breathed.

"Look!" cried Mal pointing upward. "Rador!"

"Spawn of filth!" bellowed a voice from the screen. There stood Thego's own image—flashed from his own brain. "Go back where you belong or I'll annihilate you! Will you never learn your lowly places?" Quickly his image turned toward the great control panel where Lightning Men assistants sat in mortal terror.

"Quick, Ponsto!" shouted Thego. "The seventh lever on panel ten!"

Mal bounded toward the control board. But he was too late. The fellow had already pulled the lever.

Instantly a heavy door swung open at the far side of the room. The interior of the opening was dimly black. For a minute that seemed endless they waited, all eyes riveted upon that opening.

Faintly at first, then heavily, came the pounding of many feet. Mal's hopes raised. Could that sound be Rador and his own men running to their aid? Instantly those hopes faded.

Through the doorway bounded a veritable stream of magnificently built

fighting men—eight and nine-foot giants. They were armed with great broadswords. Mal grabbed Noovia's arm.

"The men from the sacred chamber! I can't believe it—they've brought them back to life." Quickly he shoved Noovia to a place of safety. "Keep this knife," he ordered, "and stay here out of danger." For a brief moment their eyes clung to one another.

"Surrender, slaves!" Thego shrieked. "Surrender or you die!"

"Never!" shouted Mal as he bounded forward toward the slaves. "Single them out!" he shouted. "Four slaves to every giant! Down with the Lightning Men!"

In a rising crescendo of screams and shouts the slaves surged forward. The laboratory was a bedlam. Never before in history had such a battle raged. Legless human "arms," practically helpless alone, suddenly swung to the backs and shoulders of massive-legged "mounts" that were armless and headless. But together they made a powerful fighting combination, rode riot among eight and nine-foot giants resurrected from the dead.

Mighty "arms" swung like pile-drivers. Riderless "mounts" leaped and kicked. Long broadswords hewed a bloody swath through slave ranks.

**B**UT the Gargantuan size and strength of the giant Lightning Men was taking heavy toll among Mal's warriors. Those two hundred supermen were more than a match for even the thousands of distorted, crippled slaves.

With a broadsword from the hands of a fallen giant Mal leaped among the ranks of the enemy. Time and again his blade sank deep into living flesh. But still his own men fell before the merciless onslaught of those cold, ruthless killers from the dungeons of Sangorong.

Above the roar of screaming men came another sound. Rador was again trying for a landing.

In that same instant Mal saw Thego. Borne on the shoulders of a giant, the king was mounting the magnet gun. In a moment the heavy machine swung toward the onrushing Arkian ships.

To Mal Mandark those fast moving seconds were the longest of his life. The revolt was failing. His crippled slaves were being slaughtered. Overhead the Arkian ships were facing inevitable doom at the mercy of that diabolical electromagnet, to be sent whirling into space. Mal could never hope to reach Thego's side against the giant standing above with waiting sword.

"Mal!" came the professor's familiar voice. "I've been studying that transformation apparatus—it has very interesting possibilities. If put to humanitarian uses—"

"Transformation gun!" echoed Mal. "Come on, Professor!" With all the speed his elongated arms and legs would give him he leaped toward the transformation machine. He clambered up the scaffolding. Thego was aiming the magnet gun carefully, deliberately at Rador and the fleet, ready to send them careening into the void of space.

Mal had watched the slaves operate the transformation mechanism. But he wondered if he could do it now—alone. The coldness of space shot through him.

"That rod!" gasped the professor as he came to a breathless stop. "Back of the sighting coördinate—I think it should be pushed forward—throws the dynamo into action. Quite an ingenious idea. I've already made some notes of it."

Mal swung the ponderous mechanism about on its huge universal joint. What havoc he could deal out to Thego he did not know. It was but a wild hope. The sights came to rest on Thego's back. Mal thrust the lever forward to its limit.

Both guns discharged their invisible bolts at the same instant. The drag on the electric plant of Sangorong was tremendous. A throbbing recoil hurled Mal from his feet.

"They've stopped fighting!" cried Noovia. "They're watching Thego!" The king of Sangorong stood rigid in his tracks. Suddenly his body quivered.

"Look, Mal!" gasped Noovia. "He's—he's swelling!" The giant guarding Thego had fallen face downward.

Carefully Mal played the sights over Thego's body.

"You've done it!" shouted the professor. "He's started to expand!" An ominous roar arose from the ranks of the giants as they bounded toward Mal with upraised swords.

Coolly, deliberately, Mal swung the gun first upon one and then another of the onrushing horde.

Instantly they stopped, transfixed by the invisible force. They fell to the floor. Their bodies started swelling.

"Amazing!" gasped the professor. "You've pushed the control lever so far forward that you've induced a remarkable degree of cellular growth. An astounding mechanism."

A frightened hush fell over the slaves as they observed the transformation affecting the king.

**T**HE fallen monarch had rolled from the gun scaffolding to the floor. He was nearly four times his former size. With each passing second the growth was visibly increased.

The professor clutched Mal's arm. "I fear that we may have trouble," he exclaimed slowly. "He is obviously growing at a rate which is increasing in—er, ah, direct proportion. Now let me see—" The professor closed his eyes making mental calculations.

The fallen giants were swelling at an alarming rate. Their expanding bodies wedged among the scientific equipment of the laboratory. A hissing and spluttering of sparks shot from a broken condenser. With each passing minute their sizes doubled. They crowded one against another like a mass of expanding balloons. Those beneath forced others to the top of the mass.

"What'll we do, Mal?" cried Noovia. "We'll be crushed!"

The entire floor of the auditorium was covered by the distending mass of human flesh. Slaves fought for the exits, scrambled over the Gangantuan mass of living tissue. They leaped from one huge bloated corpse to the next. It was unbelievable, yet here was an actual threat to the city itself—a threat Mal himself had created.

Noovia clutched Mal's arm.

"The copper dome!" she exclaimed. "Those horrible bodies will burst the dome. Then we'll be exposed to the lightning!"

"Quick, Noovia!" Mal shouted as he leaped from the scaffolding. "The magnet gun—it's our only hope."

"Er, ah, I estimate," commented the professor, still making mental calculations, eyes closed, "that the cellular growth in these bodies at the expiration of a period of—say ten minutes, will result in a size that will be—er, ah—an actual hazard to us." Whereupon his eyes opened. "My word!" he exclaimed. "This is interesting!"

Mal had scrambled to the magnet gun control mechanism. The pressure of the squirming, bulging mass wedged itself tighter and tighter against the gun scaffolding.

Mal swung the muzzle of the gun downward. He knew it was a wild hope—but why wouldn't it work? If those Arkian ships had been electrically repelled from the planet, why not a human body? There was no time to experiment. The gun upon Thego's gigantic body, now nearly forty feet long. His finger pushed the nearest button. Thego moved toward the gun. Mal pressed the next button. The body rose slowly from the floor. Instantly Mal shot the current on full. Like a projectile from a catapult Thego, king of Sangorong, shot upward, crashed through the skylight and whirled into the clouds.

"Thank Sirius," breathed Noovia. "You've made it work!" Hurriedly, yet methodically, Mal played the gun over the bodies. It was a race against time. A horrible, gruesome race. One after another, singly, in groups of two, three and four, the bodies floated, twisted into the sky above. They all went whirling into the clouds, to be lost forever in the void of darkness beyond until some oppositely charged celestial sphere would suck them into a lonely grave.

"MAL!" came a familiar voice from the doorway.

"Rador! Roto!" shouted Mal wearily. "Thank God you got through."

Wearily, the old scientist placed a tired hand on Mal's shoulder. Tears

came to his eyes at the sight of Mal's misshapen body.

"Don't worry about that, Rador. That machine over there will fix us all right." It was several moments before Rador could speak.

"My boy, you've done a marvelous piece of work. The fact that I got here with my men and have the rest of the city under control is only a gesture—but what you have done practically single-handed is almost unbelievable. Your father died for us, Mal," he said, overcome by emotion, "but in you he lives again. You have given us a new life. Again a Mandark has saved his people."

It was many hours later. Mal, Noovia, and the rest of the deformed slaves, guided by their lightning-ray plates, had been re-transformed to their normal shapes.

"There's no reason," Rador was saying, "why we can't live here in peace with these Lightning Men. There are two cities. We could occupy one, they the other. I'm sure we could each contribute much toward the progress of human life and happiness on Nova Terra."

"I'm glad to hear you say that, Rador," replied Mal. "For though I was determined above all else to find a home for our people, I hated to think of thrusting these Lightning people from their city. I'm sure we can manage it now."

"I'm so glad," exclaimed the professor scratching his bald head, "because I've wanted to experiment with that transformation mechanism. If properly adjusted, there is no reason why it won't grow hair."

A lieutenant approached Mal.

"Sir, Major Roto has just returned with the first load of Arkian settlers."

A few minutes later a beautiful woman walked into the laboratory at Roto's side. Without a word Mal took her in his arms. At the far end of the hall Noovia saw, and her sparkling eyes clouded with tears. Turning, she ran from the room, pushing her way through stubborn ranks of crowding soldiers.

"Come back, Noovia," Mal shouted. "I love you!"

Noovia looked back and then ran

faster. Her black hair streamed out behind her.

"Come back," Mal shouted, "or I'll shoot!"

Noovia gave a little scream, halted.

Mal's arms shot out, caught her quickly to his breast.

"Let me go!" she cried, and her little fists beat upon his broad chest. "Go back to your woman and leave me alone!"

Instantly Mal's face brightened with joy.

"That was my mother I kissed," he said softly, his eyes twinkling.

Noovia's dark, angry eyes suddenly softened. A tiny smile crept to her flushed cheeks. Slowly her arms stole around Mal's neck and her soft lips parted.

The son of the man without a world had found a mate in a new world.



NEXT MONTH  
**THE TIME CHEATERS**  
 A Novelet of Eternity's End  
 By EANDO BINDER



No luck, my friend, you're off her book,  
 The girl can't stand that bristly look.  
 For thrifty shaves . . . clean, easy, quick,  
 The Thin Gillette sure turns the trick!



The Thin Gillette Blade Is Produced By The Maker Of The Famous Gillette Blue Blade



Mortal Murder Was Part of a Sheriff's Duties—But the Horror at the Peterson Ranch Involved Immortality!



*Inside of his amoebic body I could see the red tissue of his heart throbbing violently*

# SECRET OF THE CYCLOTRON

By JACKSON GREGORY, JR.

*Author of "Dragon's Death," "Twin Murders," etc.*

I'VE been sheriff of Shafter County for a little over eleven years. That's a long time these days, but even so, if I keep my mouth shut now, I can be pretty sure of swinging the election next fall.

The trouble is, I can't keep this to myself any longer. Not without waking up in the middle of the night in a cold sweat and calling myself a coward and worse. Last week it was different. Today I've got to tell the story and hope that the people that know my reputation for being honest

will believe I'm telling the truth.

It all started on a Friday morning about ten months ago. I was alone in the office when the phone rang. I pulled it to me lazily.

"Hello. Sheriff Galtman speaking."

It was a woman, and she was right next door to hysteria. I couldn't make much sense of what she said, except that she was Mrs. Davis who was a neighbor of the Petersons, and that all hell had busted loose on the Peterson ranch.

"Now, just take it easy, Mrs. Davis,"

I told her. "I'll be right out. Don't touch anything around the place!"

I got the old Packard rolling fast out along the Lincoln Highway. About two miles past the edge of town was the Servac place. We never saw much of Anton Servac. He kept pretty well out of sight behind that high brick wall of his. Around town he was called the Professor.

The road to Peterson's turned right off the highway about a quarter of a mile past his place. I slid the Packard into it, ground over the one hill and down into the Peterson ranch.

There were four people standing close together in the sunlight about fifty feet from the house. They were neighbors out here—three women and one man.

I figured I was in for trouble as soon as I got out of the car and saw the blank, white faces on them. I know that expression. It's the look a man gets when he sees something that turns his insides to water.

"Well?" I snapped.

"Inside, Sheriff," the man said. His voice was husky, and he kept clearing his throat. "In the bedroom. It's the same as happened to my goat and to their calf."

I went in. There wasn't any disorder in the living room. A glance showed me the kitchen was neat. Then I pushed into the bedroom.

Everything was tidy. The covers on the bed were bulged smoothly over the figures beneath. It was the same with the baby's crib beside the bed. Only instead of the head of a man and wife and their child, three empty skulls grinned at me!

**I** GOT Doc Rayner on the phone. He was the medical examiner.

"Get over to Peterson's right away," I snapped. "And listen, Doc, who was their dentist? McGraw? Okay, bring him along too, and make it fast."

Then I went outside. Mrs. Davis had come over to get some eggs. When they didn't answer her call, she had looked in the bedroom window, seen the three skeletons there.

I asked when they had seen the Petersons last.

"They were over to my place last night," the man said. "It was maybe eleven o'clock when they left."

"Okay." I went back in the bedroom again, pulled the covers down. The skeletons lay there in sleeping postures, the bones a bleached white.

I leaned my head out of the window when I heard Doc's sedan pull up. Doc and McGraw were in front. Doc's Great Dane, Albert, filled up the back seat.

They came in. The sight in the bed stopped them dead still. McGraw's a big man, nearly my size. His face was white when he looked from the skeletons to me. Little Doc Rayner's bald head started bobbing up and down.

"You first, Doc," I said. "How long since those bones were walking around?"

There was a puzzled look on his round face as he made his examination. His tongue clucking in his cheek made me nervous.

"Well?" I said after five minutes. "How about it?"

"These don't belong to the Petersons, Dave." He straightened up and faced me. "The bones are bleached dry. There's no marrow inside. These skeletons must have been exposed to the air for months."

"Maybe lye," I suggested.

"No." He was definite. "Anything like that would leave marked effects on the bones."

"Okay." I motioned to McGraw. "Take a look at their teeth."

The dentist moved to the side of the bed. First he opened the jaw of the larger skeleton, examined its teeth. Over his shoulder I could see the flash of gold inlays. Then he went around the bed, studied the woman's teeth.

"You're wrong somewhere, Rayner," he said gravely. "These were the Petersons." He pointed a blunt finger at an inlay in the woman's jaw "I filled that bicuspid for her less than a month ago. And don't try to tell me I don't know my own work."

"Less than a month!" Doc Rayner snorted. "I tell you—"

"Now wait a minute, Doc," I said. "Jack Williams lives half a mile back down the highway. A week ago he

lost a goat. He found its skeleton and it looked like these here. Bleached and dry. The same thing happened three days ago to one of Peterson's calves. Now these. What the hell's doing it, Doc? Between eleven last night and eight this morning, what could make old skeletons out of three living people?"

"I don't know." His round face was screwed up with perplexity as he stared at the skeletons.

"Doc, I'm not much of a scientist," I said. "Maybe this idea of mine is crazy. Could X-ray burn the flesh away like that? X-rays or radium?"

"Lord, no. Where'd you get that—" He stopped suddenly, staring at me. "You're thinking of Servac!"

"Yeah, I am," I admitted. "His place is a quarter of a mile from where these things have been happening. I'd sort of like to take a look in on him."

"You're nuts," Rayner grunted. "Still, I'd like to see what he's up to in that lab of his."

**T**HE three of us went in the front seat of Doc's car, with the dog Albert in back.

What Anton Servac was doing in his laboratory was a mystery in the town. All sorts of rumors had spread around. There were only a few definite facts to go on. Servac had a special high-voltage power line leading into his place, and he had brought in machinery that Doc Rayner had suggested might be for an unusual powerful X-ray machine. That was what gave me my idea.

"The gate's locked," Doc said. He had pulled the car to a stop in front of the massive iron gate that blocked Servac's driveway.

"Ride the horn," I said.

After five minutes of intermittent tooting, I saw the Professor's thin figure coming down the drive toward us. He was a little man, smaller than Doc Rayner, and the angular lines of his face were set in a perpetual scowl.

"Why do you make that noise?" he shouted at us from behind the iron bars. "What is it that you want here?"

"I'm the sheriff, Mr. Servac," I ex-

plained. "I'd like to look your place over."

"Why?" He waved his hands excitedly. "I am no bootlegger. Why do you want to look at my place?"

I climbed out of the car and walked over to him. Through the bars I explained about the strange death of the Petersons, and how I thought his laboratory might have something to do with it.

"You are insane!" he yelled when I had finished. "An X-ray machine do that, a quarter of a mile away! Go away. You are mad."

"Okay, Professor." I was getting mad. "If I go, you can bet I'll be back, and with a warrant and enough men to go through your grounds from top to bottom." I turned back to the car.

"Wait a minute." He unlocked the gate, pulled it open. "If I show you what I am doing, and how absurd you are, will you leave me alone then?"

"Certainly." I stood on the running board, and Doc started up the drive.

We had gone about fifty yards up the drive when Doc's dog sprang out of the open back window of the car. He hit the ground and raced across the lawn, his deep bark booming out of his powerful lungs.

Doc slammed on the brakes and shouted after the dog. When Albert plunged into the shrubs, Doc jumped out of the car and started after him.

"Richard!" That was Servac shrieking out the name. He was wildly excited. "Richard! Go to your room. Go to your room at once!"

Suddenly, off to the other side of the garden, I heard Albert's barking change. The dog was clearly yelping now, yelping with fear. Then its yelps stopped as abruptly as though its head had been plunged into water.

"Come on!" I shouted at McGraw.

We overtook Rayner, started a search for Albert. Doc kept calling his name, but he didn't answer. There were three and a half acres inside that high brick wall, and it was the better part of three-quarters of an hour before we found the dog.

"My God!" It was McGraw who found the dog, and he called us hoarsely to his side. We grouped

around it and stared down in horror.

The skin was gone, dissolved away. In places the skull showed bare and white, and here and there a rib showed through the naked flesh. It was as though the dog had been dipped into a vat of acid that had hungrily eaten its flesh away. Even the eyeballs and the inside of the mouth had been attacked.

"The Petersons!" McGraw croaked, echoing the thought that burned in my mind. "Another hour and it would have been a dry skeleton."

Doc bent over the lifeless creature. His hands were trembling as he examined it. He had loved that dog.

"A process of digestion," he mumbled as he straightened up. "Hair, skin, everything, digested away rapidly. It's—" He shook his head in angry bewilderment.

**WE FOUND** Servac waiting for us by the car. He was subdued, his small, thin body slumped with weariness.

"Gentlemen," he said slowly, "I may be able to tell you something of what—what has happened to my neighbors and your dog. I pray to heaven that I am wrong. Come with me."

With quiet dignity he led us to his laboratory. It was a squat brick building set five hundred yards from the house. The power poles led to it, and a maze of wires sprang from its roof.

The door from the outside opened into a library. Books ran in unbroken rows from the floor to the ceiling. There were four hard, straight-backed chairs there in which he sat us.

"I don't know how to begin." He paced before us nervously. "I—"

He paused, turned to a small cupboard in one wall. From it he took whiskey and poured himself a drink. As an afterthought, he poured a drink for each of us. The others, like me, took the whiskey down in a gulp.

"Perhaps it's better if I show you." He beckoned us to our feet. When he opened the door at the rear of the room, I saw that the back side of it was shielded with lead a foot thick.

That laboratory behind the library was a strange sight to my eyes. The

walls were gray lead. A huge cylinder stood in the center of the room. Shielded with lead, it was six feet through and reached from the floor twenty feet up to the ceiling. Tiny round portholes of leaded glass peered into its interior. Ten feet this side of it was a lead shield two feet thick. Behind the protection of the shield was a panel on which was assembled a bewildering array of dials. Just above this panel was a sheet of ground glass four feet square.

The whole thing made me dizzy so that I had to lean against the cold lead of the wall for support. Dully I listened to the drone of Servac's voice.

"That is a cyclotron," he was saying. "You know the principle, Doctor Rayner. Two circular plates slit diametrically and set slightly apart. An alternating magnetic and electrical field between them imparts a circular motion to electrons in the space—a motion of ever increasing velocity. With this particular equipment I have been able to attain a speed of five hundred million electron-volts."

The Professor's voice seemed to be having a hypnotic effect on me. It became increasingly difficult to concentrate on what he was saying. "I built this for the purpose of eliminating cancer. I held the theory that the present methods of attacking cancer could never wholly succeed; that X-rays and electronic and radium bombardment was not the answer. Everything pointed to the need of bombardment by a neutral particle, and one heavier than the electron. At first I planned on neutrons. Then the X-particle, barytron, was discovered. Immediately I saw—"

A crash interrupted him. Drunkenly I saw that Doc had spilled face down, unconscious, on the floor. To my left McGraw was swaying uncertainly. As I watched, he slumped down, his inert figure falling at Servac's feet.

"Damn you!" I lunged forward, waving my fists wildly. "Drugged us, did—" I fought the fumes in my brain. They spun through my mind, wild, dancing fires. As they closed in,

blanketing my brain, I saw Servac's thin face grimly watching me.

**A** HIGH-PITCHED whine throbbed at my ear-drums, sent echoing vibrations whirling through my skull. My body, numb still from the drug, trembled to the overtones of power that accompanied the whine. Slowly I opened my eyes.

I was still in the lead room, behind the heavy shield. Servac was there, just in front of me, seated before the dials on the panel. His hands, quick with nervous energy, flicked from dial to dial in response to the fluctuating gauges. Above the panel a pulsating yellow glow illuminated the sheet of ground glass.

I struggled to move, felt for the first time the cords that bit into my flesh, held me tight. I was in one of the straight-backed chairs from the library, bound so tight that even a shallow breath caused the cords to dig into my chest. I tried to curse. My lips were sealed with tape and only muffled sounds came from my nose.

For a couple of minutes I struggled blindly to break loose before I gave up hope. Servac ignored me, his entire attention fixed on the instruments before him. I rolled my head helplessly to the side, saw McGraw.

The dentist, bound and gagged like me, was in a chair two feet to my left. He was looking at me. Mingled rage and fear stared at me out of his eyes.

The whine increased its pitch until it became a thin wail. It seemed to come from the upper part of that huge cylinder in the middle of the room. Dynamos, I thought, driving at full speed.

I looked back toward Servac, and my eyes were drawn to the ground glass. Straining forward against the cords, I stared at the picture that had formed.

It was Doc Rayner! Naked, his fat little body was stretched out on a lead table. In that glass I was looking straight down on him. He was unconscious—or dead. A queer metal cap from which ran three wires was clamped to the top of his bald head. In half a dozen spots about his body,

needles, from which led a single wire, were plunged into his body.

Protruding into my vision near Doc's feet was a long lead jet. I looked from it to the walls of the tiny room in which Doc lay. The walls were curved and—

Doc was inside of the cylinder—inside of the cyclotron!

"It is ready."

Servac turned toward McGraw and me. There was a thin smile on his lips, a smile of pride. He spoke exultantly:

"In the space above your friend, electrons are swirling at the speed of over half a billion electron-volts. A tremendous power, capable of penetrating feet of lead. And they are completely under my control."

He paused, examining the quivering needles on the panel.

"In a chamber below the electrons," he went on, "is a store of barytron particles that I took from the stratosphere. I don't understand them entirely."

He shook his head then as though admitting a weakness. As he continued, I realized that while speaking to us, he was actually talking to himself.

"Barytron—air atoms smashed and transmuted by cosmic rays. Neutral particles weighing three hundred electron units. I impart to them the tremendous speed of the electrons in the cyclotron and—look!"

He leaned forward, threw closed a switch. My eyes whipped to the glass screen.

A thin beam of pinkish light—perhaps it was a driving stream of barytron vapor—sprang from the lead jet directed at Doc's bare feet. In response to Servac's minipulation of dials on the panel, the jet moved.

**I** STRAINED at the cords, as I saw what the jet was doing as it played its hurtling stream of barytron particles on Doc's flesh.

At first I had thought that it was disintegrating the little man's body, smashing it into dissociated atoms. Now I saw that it was *melting* the tissues. His feet had been trans-

formed into clear blobs of a jellylike substance.

With a slow sureness the jet moved up his legs. Behind it the mass of clear substance increased. It took on the shape of a huge marine jelly-fish. It grew, following the progress of the jet, seemed to be devouring Doc's tissues, converting his flesh and bones into its own clear protoplasm.

I could make out red and blue cords that laced through it—cords that branched out into a multitude of tiny hairs. The thought struck me, sickened me, that those were his arteries and veins. Somehow his circulatory system was resisting the barytron jet.

By the time the jet reached Doc's hips, the lump of protoplasm was the size of a medicine ball. It moved. It looked like something Doc had once showed me through his microscope—an amoeba, he had called it. Now Doc was being turned into one of these things—an amoeba, ten thousand times enlarged.

Streamers of the jelly—pseudopodia, Doc had told me they were when I looked through the microscope—flowed out across the surface of the table like questing fingers. They would stretch out just so far, then suddenly whip back into the main mass of the substance. Where the barytron jet played, transforming Doc's flesh, these pseudopodia were the most active.

"A queer little particle—barytron." Servac spoke without turning his attention from the dials. "I sought in them a cure for cancer, and found—" He chuckled. "Because they are neutral particles and because of their size, they cause no atomic disintegration. Instead they affect the cell structure of the body. Smashing through the flesh, they tear down the cell walls, disrupt cellular differentiation. Even the genetic system is changed, broken down to the status of the simplest protozoan. The result—an amoebic mass of protoplasm."

The picture on the screen showed that the jet had reached Doc's ribs. The main artery that had run down the front of his stomach showed clearly in the transparent jelly. I

could see the red blood throbbing through it.

Strangely fascinated, I could make out white, knotted cords branching through the mass of protoplasm. There was a thick rope of the white stuff leading into the amoebic mass from the still unchanged upper half of Doc's spine. These white cords, branching out into fine networks, ran to all parts of the clear protoplasm. I guessed, correctly, that the nervous as well as the circulatory system was resistant to the jet. As though in answer to my thoughts, Servac said: "The metal cap on your friend's head and the wires inserted into his body serve to carry electrical currents through his blood stream and nervous system. These currents with their accompanying magnetic fields serve to deflect the barytron particles just enough to preserve most of these tissues. A large percentage of them may be lost, but—" His thin shoulders shrugged. "Enough are left for the purpose."

I had given up hope for Doc. Already the jet had uncovered half of his heart. I shuddered, turned my head toward McGraw. The dentist, his face white and haggard, was staring intently at the screen.

Working now with slow patience instead of force, I tested the cords that bound my arms to the chair behind me. There was the slightest bit of slack apparent. If I could increase it, I might be able to put an end to this man in front of me and his infernal machine.

One thing gave me confidence. Servac had not thought to search me for a gun. I could feel the hard pressure of my .45 automatic in its shoulder clip.

**A**N abrupt change in the whine of the cyclotron snapped my attention to the screen. The high, hardly audible wail fell in pitch. It sounded like the siren on the Packard when I take my foot from the button. The wail dropped lower and lower until it was a hoarse moan. Then it died out and the silence in the room was startling.

The image in the screen still gives me nightmares. Only Doc's head and part of his neck was left. Running out of his neck stump where it joined the mass of protoplasm was the white nerve tissue of his spinal cord and the red and blue blood vessels that fed his brain. The protoplasm below his neck stump had drawn itself up into an almost perfect sphere.

Only one pseudopod protruded from it. This blunt streamer moved upward toward Doc's head, flowed across his face. I could see a white nerve cord running to the very tip of this streamer. I knew, the way this streamer of protoplasm moved, that the nerve cord inside of it had once activated Doc's arm. Now with Doc trying to rub his hand across his closed eyes the nerve carried the impulse, imparted it to the surrounding protoplasm.

"It is completed." Servac stood up. He turned, walked over to the cyclotron. The lead shield hid him from view. I looked at Doc's image on the glass screen. Doc's eyes were open now. They were staring blankly as he rolled his head from side to side.

A section of the curved inner wall of the cyclotron split open, admitted Servac. He slipped the metal cap from Doc's bald head, jerked out the needles that were buried in the mass of protoplasm. He was walking to Doc, but the sounds that reached me were too muffled to understand.

Sweat was streaming down my face, intermittently blinding me. Every muscle in my body was tense, straining. Behind me the cords that lashed my hands to the chair were slipping.

I forgot about the screen, forgot everything but the knots that held me. Surely, but with a slowness that made my nerves scream, my hands were coming free. One cord, then another, dropped loose.

When I looked again at the screen, only my ankles were still tied. Servac was stepping out of the cyclotron, Doc had disappeared from the vision of the screen. Damning the numbness of my fingers, I ripped the last knots free.

"Don't try too much at once." That was Servac's voice, talking to Doc. I could hear his footsteps behind the screen. "It is hard now, but you will grow accustomed to it soon."

I was standing up now, waiting. With my left hand I stripped the tape from my mouth. My right hand was clamped hard around the butt of my automatic.

Doc came first.

At the sight of him, I fell back, shuddering.

His body, like a great amoeba, was spread out across the floor. It moved slowly, uncertainly, by sending out thick, five-foot pseudopodia, then drawing itself forward to these.

Doc's head, two feet above the floor, was perched precariously on top of that lump of protoplasm. It wobbled crazily from side to side. Inside of his amoebic body I could see the red tissues of his heart throbbing violently.

Doc's face was blanched white. An expression of fear and bewilderment was stamped on it. He looked at me. He could see me. There was pleading staring out of his eyes.

When Servac came from behind the shield, I was ready to kill him. If he had so much as uttered a sound, I would have hammered his body full of lead. Seeming to sense this, he froze, staring at me out of slitted eyes.

Covering him with the gun, I got McGraw loose. The dentist, as he stood up, muttered:

"God! It can't be." He was staring at Doc's round, bald head.

Doc's head was jerking wildly. He was talking, trying to say something. No sound came through his blue lips.

"McGraw," I snapped, "go phone Dan Morrey. Tell him to get out here with a couple of the boys." Then I turned back to Doc, and said slowly: "Can you understand me?"

He nodded his head.

"Okay." I swallowed hard. "Look, Doc, I—I've got to do this!"

He knew what I meant. His face twitched spasmodically; the protoplasm quivered, started to flow away from me. I gritted my teeth, raised the gun.

**I**F I had shot him then—but I didn't. A hoarse shout from McGraw spun me around, stopped my finger.

The dentist had swung open the heavy door to the library. Now, flowing in through that door, was another creature like Doc. The amoebic body was huge, fully five times the mass of Doc's. Its streaming pseudopodia shot out in a swift, sure manner, moved it rapidly across the floor.

The head of a young man surmounted it. A blond beard covered his face. Cold, unemotional hatred burned murkily in his blue eyes.

"Richard!" Servac screamed. "Look out! He's armed."

The thing stopped then. As I threw up my automatic, its protoplasm contracted violently. Two streamers like arms shot upward, engulfed the blond head, drew it down into the center of the amoebic body. The protoplasm closed in, sealing the head in the very center of the mass just alongside of the rhythmically pumping heart.

My finger clenched on the trigger, set the gun bucking in my hand. The slugs made plopping sounds as they splashed into the protoplasm. The substance smothered the bullets, stopped them several feet from the head where they hung suspended in the jelly.

The creature moved on toward me. Insanely I hurled the empty automatic into it, sprang aside.

It stopped then. Its head emerged again from the protection of the protoplasm. A bitter smile twisted its thin lips.

"Fool!" The word, sharp, metallic, came from its mouth.

I stared at it wonderingly. Behind me, McGraw muttered:

"The damned thing talks!"

"Of course Richard talks." Servac, confident now that my gun was gone, was smiling. "Your friend will talk later—when I have given him a lung bag and an artificial larynx."

I looked where he pointed. Near the center of the thing's protoplasm was suspended a bag about twice the size of a football bladder. From it led a flexible silver tube, up through the protoplasm. The tube passed into a

small silver box, an artificial larynx, that was set in the thing's neck stump.

"By expansion of the surrounding cytoplasm," Servac explained, talking now to Doc, "Richard can fill or empty that bag with air. His lungs, like yours, were destroyed—their huge blood surface so dissipated the protective electric currents that the barytron jet was not deflected around them. After all, lungs for breathing would be useless—oxygen is absorbed through the entire surface membrane of your body."

I don't think Doc heard the scientist. He was staring at the thing called Richard. Horror glazed his eyes.

A thud, sounding loud in that leaden room, whipped my eyes back to Richard. My gun—I had thrown it into the midst of his body—lay on the floor near a thick pseudopodia.

I looked at the bullets inside of him. They were nearer the surface now. I could make out tiny crystals and black particles in his cytoplasm. These were pushed away from the bullets by spherical halos, several inches in diameter, that surrounded each chunk of lead—vacuoles that would later extrude the bullets.

"Okay, Servac." I was crouched, tense, ready to leap if the thing Richard made any move toward me. "You've taken two living, feeling men and done this to them. Now what?"

"My dear boy." Servac's voice was filled with a tired patience as though he were explaining something to a child. "If you would only think with your mind, not with your emotional body, you would see what. These two men here, Richard and your friend, have not changed. Their minds, their characters, the things that really count about them were entirely unaffected by the barytrons.

"Only the body is changed—the body that distracts the mind, the body that eventually goes to pieces and causes death. Think of it!" He waved his hand toward Richard. "That amoebic body will be alive centuries from now. It can live anywhere—on the ground, in the water, so long as there is oxygen in any small quantity in contact with its membrane surface.



"In that body there are no highly specialized tissues to break down with age, no accumulation of toxins to impair the mind's functioning. Its sole purpose is to nourish the brain. And it's unlikely that any serious disorder will affect that, with brain tissues bathed in rich, untainted streams of blood.

"What is there to destroy either of these two men?" Servac, smiling at me, shrugged. "You saw the effect of your bullets. If you had a sword, Sheriff, you could hack away half of Richard's body. It would do him not the slightest bit of harm. His membrane would close over the wound and the severed blood vessels, surrounded by cytoplasm, would heal and reform. He would still be what he is now, an intelligence completely unswayed by his body."

There was a glitter of excitement in Servac's eyes.

"Do you perceive the possibilities? Man works fifty, sixty, seventy years to accumulate wisdom. Then, before he has put even a small fraction of it to work, he dies! Think then of one hundred brains such as these accumulating wisdom through the years and working together under my control. There is nothing to limit the achievement of those intellects. The great minds of the age will be saved for centuries from death and the waste of death. The problems of science, of economics, all those questions that vex man now will fall before these brains that can store up hundreds of years of training and wisdom."

**I BELIEVED** Servac. At that moment, watching the earnest little scientist, I saw his dreams, saw a great good to humanity in what he had done. No death for the Einsteins of the world. A group of super-intellects to guide the rest of us poor devils.

Then I looked at Doc, saw the horror, the bewildered fear in his face. Instinctively I turned to Richard. Hatred, cold, bitter, unemotional hatred stared out of his blue eyes. He was watching Servac.

I knew then the one thing that the Professor had overlooked!

"Professor!" I snapped. I saw his danger. "For God's sake, get—"

"Ha, ha, ha." The flat, metallic sounds came out of Richard's mouth. It wasn't a laugh. He merely said in that dead monotone that was his voice: "Ha, ha, ha. The great Professor Servac. The wise Professor is going to die."

"Richard!" Servac screamed as he saw the thing's intention. "Richard—stop!"

It moved toward Servac. Its protoplasm flowed out in two thick pseudopodia around the Professor's feet. Servac screamed wildly, battered with his fists at the yielding substance. The creature bunched together, sent streamers of protoplasm flowing up his body.

It was over suddenly. Servac's screams choked off abruptly as the protoplasm engulfed him. He twitched for a few seconds inside of the mass, then collapsed.

The creature turned toward McGraw and me. Slower now, dragging Servac's body inside of it. It flowed back across the room.

We fled. I feel no shame in admitting it. No man could have stood before that monster. Out through the library we raced, across the lawn and down the driveway.

We were back in a little less than an hour. In town we had picked up Dan Morrey and three other men I had deputized. We were armed with pitchforks and a heavy fish net that Dan had dug up.

I left three of the deputies at the gate with their pitchforks. Dan and I and McGraw, with our forks and the net, went on to the laboratory.

It was empty. Keeping together, we started our search outside. We found the first trace behind the building.

It was a skeleton, the body framework of a small man. All trace of flesh was gone from the dry, bleached bones.

McGraw, staring at it, muttered:

"Servac!"

"Yeah." I stared at the surrounding shrubs, expecting the creature to flow out upon us. "Like the Petersons. His flesh, even to the marrow in his

bones, completely digested."

**WE** found the thing called Richard. It was digesting what it had left of Doc's dog, Albert. It had visibly increased in size.

We attacked it with the pitchforks. They were useless. With its head drawn safely to the interior of its protoplasm, it engulfed the forks with pseudopodia, wrenched them from our hands with all the power of its mobile substance.

Dan Morrey rushed in on it with the net. Poor devil—he didn't guess the creature's deadliness. He threw the net over it. I shouted at him to get away, but he stepped in closer, trying to cinch the net tight.

Long streamers of protoplasm shot out through the net, wrapped around Dan. He tried to break away, stumbled and fell. I jumped to his side, grabbed at his leg. The protoplasm, cold, sucking, swallowed up my arm.

McGram saved me, hauled me loose. The dentist was sobbing with rage, but there was nothing we could do. Dan was lost.

The creature, flowing noiselessly over the ground, drove us back to the driveway. Then it returned to its grisly feast.

"Dave!" McGraw's big body was trembling. "We can't kill it, Dave. The damned thing is immortal. And Doc—oh, damn Servac!"

"We can kill it." It was fighting to keep calm. "There's a way, somehow. Servac must have experimented with animals first. He got rid of those."

"They didn't have human intelligence," he said. "This thing will go on, growing, feeding. Servac was right. Centuries from now—"

"Shut up!" I jerked his arm. "Don't let the thing get away, McGraw. Get the men at the gate. Do everything to head it off if it tries to leave. If it gets in the brush, we're lost."

I left him then. We had come out from town in Dan's car. I got it going, held the siren wide open. It was a mile to the Standard Station at the Parkman intersection, a mile back. I drove the car at full throttle. The

rubber on the tires screamed and smoked around the curves.

Back at Servac's, I shouted at McGraw:

"Is it still there?"

"Yes." He came over to the car. His lips were tight against his teeth. "It's back there—eating."

"Okay." I grabbed one of the five gallon cans out of the back seat. "Come on."

The only reaction of the creature to our approach was to run out two or three threatening pseudopodia. Safely out of reach, I ripped the top out of the can.

"This has got to work!" Praying, I stepped forward, hurled half of the contents over the thing. It was deluged in a bath of lubricating oil.

Instantly it realized its danger. The thing's head popped out of the mass of oil-coated protoplasm. Its beard dripped oil, its eyes stared out from behind a film of the substance.

For the first time it fled. I ran after it, threw more of the oil over the quivering mass. Dirt and pebbles clung to it, held there by the oil.

Soon its movements slowed down. It seemed to waver, sending out its streams of protoplasm in convulsive spurts. It breathed through the whole surface of its body—and that surface was completely covered with the film of oil.

In half an hour it was dead. Like a jelly-fish thrown up on land, the protoplasm flowed out in a shapeless, watery mass. Cytolysis ruptured the surface membrane. The heart, still visible behind the coat of oil and dirt, stopped its throbbing. The head lay sprawled grotesquely in the center of that pool of jelly.

**TWO** nights later I found Doc. I had figured that he had gotten away into the brush, that sooner or later he would seek food—human food because it would be the easiest to obtain.

To Doc—that swell little guy I had known—human food would be the same as it had been to the thing Richard. After a time he would lose all sense of relationship toward humans.

That was the thing Servac should have foreseen.

I waited for Doc in the place where I thought he was most likely to strike first. Below the town the American river runs. An old woman lived in a shack by the river. All alone, she could offer no resistance. I sent her away, waited in her place, waited to kill Doc.

He came the second night. The moonlight showed his body flowing into the room where I waited. I snapped on my flash, turned it on his face.

I cried out loud at the sight of his features. They were altered, bestial.

He heard my voice, knew that it was a trap. Before I could move, he whipped back out of the room.

I chased him. With the can of oil in one hand and the flash in the other, I raced after him down the path to the river. Driven by desperation, I gained on him, got close enough to hurl the oil just as he was slipping into the water.

I assumed that the oil had covered him, that he had died beneath the surface of the American river. There

wasn't any sign of him after that. I hushed up the story, spread a wild yarn about a mad scientist to explain the skeletons. The deputies, never quite sure what had happened, were sworn to silence. McGraw and I never spoke about it, even to ourselves.

Then yesterday, ten months later, I read a short notice in the paper. I showed it to McGraw. He didn't say anything, just looked at me and nodded.

The clipping told the story of a man who was killed by an octopus while swimming on a beach below San Francisco. Witnesses told a story that the paper passed off as an optical deception due to excitement—a story about a man's bald head appearing for an instant beside the victim's. Unexplained by the paper is the fact that three hours later the waves washed up the man's skeleton, entirely stripped of flesh.

I am scared. I don't know what to do, what to tell the world to do. I'm not sure of anything. All I can say is:

The American river runs into the Sacramento, and the Sacramento empties into San Francisco Bay. . . .

COMING IN THE SCIENTIFCTION NOVEL SECTION  
NEXT MONTH

## WORLDS WITHIN WORLDS

A Complete Novel of a Lost Universe

By **FREDERIC ARNOLD KUMMER, JR.**

## CLOTHESPIN NOSE

Got a cold? Get two-way relief with Luden's! A Luden's on your tongue helps soothe throat—then, as it melts, releases cool menthol vapor. Your



breath carries this to clogged nasal passages, helps open your "clothespin nose!"



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# SCIENTIFIC TREASURE HUNT

Announcing a Brand-New Scientific Skill Contest, the  
First of Its Kind Ever to Appear in Any Scientifiction Magazine!

## FIRST PRIZE

An Original Cover Illustration by Frank R. Paul.

## SECOND PRIZE

Black-and-White Original Drawings by Virgil Finlay, H. W. Wesso and M. Marchioni.

## THIRD PRIZE

An Original Drawing by Virgil Finlay.

**T**HERE'S gold in the pages of **THRILLING WONDER STORIES**—if you dig for the proper elements!

How many chemical elements can you find mentioned in this issue of **THRILLING WONDER STORIES**? Scan the pages of this magazine and see how large a list of them you can compile. The editors are offering a rare original cover painting, in oils, by the great fantasy artist, **FRANK R. PAUL**, as first prize to the reader who submits the most complete list!

Second and third prizes include original black-and-white illustrations by Virgil Finlay, H. W. Wesso and M. Marchioni. These drawings illustrate scenes from stories that have been featured in recent issues of **THRILLING WONDER STORIES**.

So study the fiction, fact articles and features in this month's copy of **T.W.S.**, and get in on our scientific treasure hunt!

## THE KNOWN ELEMENTS

Hydrogen	Germanium	Europium
Helium	Arsenic	Gadolinium
Lithium	Selenium	Terbium
Beryllium	Bromine	Dysprosium
Boron	Krypton	Holmium
Carbon	Rubidium	Erbium
Nitrogen	Strontium	Thulium
Oxygen	Yttrium	Ytterbium
Fluorine	Zirconium	Lutecium
Neon	Niobium	Halfnium
Sodium	Molybdenum	Tantalum
Magnesium	Masurium	Tungsten
Aluminum	Ruthenium	Rhenium
Silicon	Rhodium	Osmium
Phosphorus	Palladium	Iridium
Sulphur	Silver	Platinum
Chlorine	Cadmium	Gold
Argon	Indium	Mercury
Potassium	Tin	Thallium
Calcium	Antimony	Lead
Scandium	Tellurium	Bismuth
Titanium	Iodine	Polonium
Vanadium	Xenon	-----
Chromium	Caesium	Niton (Radon)
Manganese	Barium	-----
Iron	Lanthanum	Radium
Cobalt	Cerium	Actinium
Nickel	Praseodymium	Thorium
Copper	Neodymium	Uranium X2
Zinc	Illinium	Uranium
Gallium	Samarium	

## READ THESE RULES CAREFULLY!

1. Elsewhere on this page you will find a complete list of the known chemical elements. Familiarize yourself with them as much as possible.

2. Only stories, articles, features and departments listed in this month's table of contents are to be studied for this contest.

3. Each time you see a mention of any of the elements listed in the atomic table printed on this page, make a note of it on your entry page, giving the name of the element, the page and paragraph where found.

4. You may find the same element mentioned more than once. If so, each different time you spot it counts as an additional point. For example, if you find mention of the element oxygen on one page, you may list it as many other times as you run across

it. Try and find as many mentions of elements as you can.

5. When you have finished, put the total number of elements you have found in this issue at the head of your first page. You may typewrite your entry, or write in pen or pencil.

6. Send your completed lists, telling which elements you have found, and on what pages of the magazine they appear, to **SCIENTIFIC TREASURE HUNT EDITOR, THRILLING WONDER STORIES, 22 W. 48th St., New York City, N. Y.**

7. The closing date for this contest is February 10, 1940. No entries will be returned. The decision of the judges is final.

8. In case of a tie, winners will receive duplicate awards. Prize-winners will be announced in an early issue.

# Science Quiz?

**D**O you know your astronomy from azimuth to zenith? Your physics from absolute to zero? Your zoology from auk to zebra? Dust off your telescopes, X-rays and microscopes, brethren, and focus your I. Q. on this month's calory-packed, ion-laden batch of scientific stumpers. They're guaranteed to generate cerebral spontaneous combustion, so up and atom, boys! Turn to page 129 for the correct answers if the proper solutions have temporarily evaporated from your mind!

## POSITIVE OR NEGATIVE

The following statements are either true or false. Truth is stranger than fiction, so think well for yours truly and don't do us wrong! (Par for this round—15 correct.)

1. While some molecules attain velocities great enough to escape from the Earth none escape from the Solar System.
2. The aberration of light is the apparent change of the direction of an object due to the velocity of the observer.
3. Abyssal fauna are the animals found in the depths of the ocean below 600 fathoms.
4. Acids, bases and salts are chemical compounds classified as electrolytes.
5. The higher the albedo of a planet the thinner its atmospheric layer.
6. Alligators are found only in the southern United States.
7. The hydrogen ion concentration is a measure of the acidity or basicity of a solution.
8. When heat is imparted or withdrawn from a body of matter, the body generally experiences changes of temperature, pressure, volume, and sometimes a change of state.
9. The mass of the Earth's atmosphere is somewhat less than one millionth part of the total mass of the Earth.
10. The apparent brightness of a star depends upon its distance from the observer.
11. The effect of silicon in steel is to impart magnetic properties that make the alloy suitable for use in electrical machinery.
12. The cost of transmission lines increases when the current carried is at high voltages.
13. The Spiral Andromeda is the only nebula which is actually visible to the naked eye.
14. An antecedent stream is one whose course or valley is obviously not adapted to the existing structure and topography of the region.
15. If we know the mass of any object, it is possible to compute, on the basis of the kinetic theory of gases, whether or not it may be expected to retain an atmosphere.
16. Bacteria are the smallest living organisms.
17. The chief function of blood is the ready transportation of materials through the animal body.
18. On Earth, it is impossible for a bullet to travel in a straight line.
19. The rigidity of bones is due to deposits of inorganic salts between the living components of the tissue.
20. The blood-grouping of a person is hereditary, but does not follow the principles of Mendelian law.

## TAKE A LETTER

Here are ten incomplete scientific facts. Four suggestions are offered in each case as possible fill-ins for each statement, but in each case only one is correct. So take a letter—if you know your alpha, beta, gamma and delta dope. (Par for this circuit—7 correct.)

1. The uniform temperature in the stratosphere is about: (a)  $+55^{\circ}\text{C}$ , (b)  $+5^{\circ}\text{C}$ , (c)  $-55^{\circ}\text{C}$ , (d)  $-155^{\circ}\text{C}$ .
2. The property of living matter expressed by irritability, conductivity, and secretion is: (a) adaptability, (b) metamorphosis, (c) growth, (d) metabolism.
3. The standard frequency of an alternating current circuit in the United States is becoming: (a) 30 cycles per second,

- (b) 60 c.p.s., (c) 120 c.p.s., (d) 240 c.p.s.
- The three most abundant elements in the Earth's crust are: (a) iron, silicon, oxygen, (b) iron, silicon, aluminum, (c) silicon, carbon, oxygen, (d) oxygen, silicon, aluminum.
  - The characteristic color of the star Antares is: (a) green, (b) blue, (c) red, (d) white.
  - Bailey's Beads occur: (a) only in North America, (b) in igneous rocks, (c) as a result of atomic disintegration, (d) during an eclipse.
  - The principal factor determining the maximum height at which a plant may grow on a mountain is: (a) soil, (b) temperature, (c) ultra-violet rays, (d) nitrogen-fixing bacteria.
  - Meteors which are observed to explode in the air are: (a) bolides, (b) meteoroids, (c) meteorites, (d) impossible.
  - Another name for the star Polaris is: (a) Alpha Orionis, (b) Alpha Aquilae, (c) Alpha Ursae Minoris, (d) Alpha Canis Minoris.
  - It has been estimated that over the entire Earth the frequency of lightning averages each second about: (a) 100 flashes, (b) 500, (c) 10,000, (d) 1,000,000.

### OPPOSITES ATTRACT

It was Newton who said that each force has an equal and opposite force. This also applies to many other scientific expressions. In the column on the left are 15 such terms. Can you match them with the corresponding contrary expressions in the right-hand column? (Par—13.)

- |                |                            |              |                       |
|----------------|----------------------------|--------------|-----------------------|
| (1) acid       | ( ) xylem                  | (8) friction | ( ) electron          |
| (2) anabolism  | ( ) spontaneous generation | (9) gel      | ( ) egg               |
| (3) anion      | ( ) sol                    | (10) gravity | ( ) dendrite          |
| (4) aphelion   | ( ) potential              | (11) kinetic | ( ) centrifugal force |
| (5) axon       | ( ) perihelion             | (12) phloem  | ( ) cation            |
| (6) biogenesis | ( ) motion                 | (13) proton  | ( ) artery            |
| (7) cathode    | ( ) katabolism             | (14) sperm   | ( ) anode             |
|                |                            | (15) vein    | ( ) alkali            |

### STAR-DUST

Here's a chance to use that telescope we were talking about a few minutes ago. Each of the following terms, when its letters are arranged in their proper sequence, spell out an astronomical expression relating to nebulae—their varieties, descriptions, and speeds. Number 11 is a type of nebula named after a famous explorer who once circled the world and had to eat his shoes. That's a heavenly clue! (Par for this cruise—8 correct.)

- |             |               |                |                   |
|-------------|---------------|----------------|-------------------|
| 1. carpse   | 2. layagx     | 3. railsp      | 4. letuscr        |
| 5. sudfite  | 6. partsec    | 7. diceshep    | 8. lalaraxp       |
| 9. toeviyic | 10. tellliiap | 11. camegainll | 12. elactrictaxga |

### RADIUM RIDDLES

Quick Dr. Watson, the radium salts! For here's a special minute quiz that will test your radioactivity. Below are listed thirteen facts relative to the discovery of radium, its discoverers, and its properties. But you've got to supply the material for each of the blanks. Don't draw a blank on this one! (Par for this stretch—9 correct.)

The phenomenon of radioactivity was discovered by \_\_\_\_\_ in 1896 by the effect produced on a photographic plate by \_\_\_\_\_ while wrapped in black paper in the dark. The excess radioactivity of mineral over chemical uranium lead the \_\_\_\_\_ to experiment with the mineral. For detecting the presence of radioactive substance a method was found in the discharge of a charged gold-leaf \_\_\_\_\_.

Radium is chemically similar to \_\_\_\_\_, its salts exhibit \_\_\_\_\_ in the dark, a continual evolution of heat taking place suffi-

cient in amount to raise the temperature of \_\_\_\_\_ times its own weight of water one degree Centigrade every hour.

Radium shows radioactivity a \_\_\_\_\_ times greater than an equal amount of uranium. From solutions of radium salts, there is separable a radioactive gas, radium emanation, \_\_\_\_\_. Of the various properties possessed by radioactive substances, the emitted radiations are of three types, alpha, \_\_\_\_\_, and \_\_\_\_\_. In kind they resemble anode rays, \_\_\_\_\_ rays, and \_\_\_\_\_ rays, respectively.

**A SCIENCE QUIZ Appears in Every Issue!**

# DAY OF THE TITANS

A Complete Novelet  
of  
Super-Life

By  
**ARTHUR K.  
BARNES**

*Author of "Satellite Five," "The Hothouse Planet," etc.*

## CHAPTER I

### *Sting of Death*

**I**N THE heart of the Gibson Desert in Western Australia, hot, barren, lonely, there stand, surprisingly, the twin steel masts of a super-powerful radio broadcasting station. Nearby is a pretty little house and garden. Two people live there, a man and a woman.

It's not an ordinary radio station. If you tune in on its broadcasts you won't hear a thing. Just the hiss and crackle of radio waves hurtling silently and endlessly to their unknown destination.

And they're not ordinary people who live there. The occasional desert traveler or prospector who stumbles on this queer outpost, so far from civilization, returns with queer tales about the strange man who rules that place, and of the weird clothing worn by the woman. There are whispers of a mad scientist who is trying to com-



municate with Mars. The natives tell fantastic stories of unbelievable animals they've seen about that place. Six-legged rabbits—horned kangaroos—flying snakes.

There's a story behind that mysterious radio station, a terrific story of titanic struggle between vast, insensate cosmic forces against simple human love and sacrifice. In short, a

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## Evolution Goes Haywire When Strange Cosmic

---



Machine-gun fire blasted  
at the pterodactyl

newspaperman's delight. A generation or two ago, anyone could have recited it, every detail. Now, most people have forgotten. But it's a story that should be told again.

It began in the year 1943. The first intimation of strange things about to happen was a sudden reported increase in skip-distance in radio reception. Some of the bigger new super-stations,

especially equipped with the recently developed and powerful Raedix tubes, were blanketed out completely in the most unexpected spots. The regular dial fans protested mightily.

At that time "Tabloid Tom" Brian was editor-in-chief of the *Evening Argus*. As a human being, Brian probably didn't rate very highly. He had printer's ink in his veins, a linotype

## Powers Are Suddenly Loosed Upon Humanity!



for a heart; he would cheerfully have sold his soul for a sensational scoop. But as a newspaperman he was unquestionably one of the greatest of his time. He had an utterly uncanny instinct for Story, and a magical ability to present his stuff dramatically.

**S**O it's not to be wondered at that Brian was perhaps the only man alive who sensed, that early, the prologue of the greatest newspaper yarn of the century.

*Argus* leg-men scurried about pestering experts, besieging scientists for statements. Much good it ever did the *Argus* readers. The N.Y.U. pedagogues spoke wisely about an accession of sun-spots, lectured at vague length on weather changes and radio interference. At M.I.T. the reporters absorbed reams of erudition concerning magnetic storms on the sun's surface. It was all very mystifying, and added up to the sum total that nobody knew exactly what was causing the skip-distance, and no one really cared.

Tom Brian gnashed his teeth.

The second element of the complicated puzzle was the birth of a white buffalo—an unusual variant—in the St. Louis Zoo. Sounds crazy, doesn't it? Yet, as everyone agreed many years later, that was jig-saw piece number two. Not even Tom Brian smelled out any connection between those two events. And the only man in the history of the world with the genius to see that connection was not yet born.

That man, however, was destined to be born within three months, and by fantastic coincidence Tom Brian himself was present at that birth. It happened this way.

Brian's older sister had been smashed up in an auto accident, and he had rushed to Chicago to see her. An operation proved necessary, so Brian patrolled a waiting room in nervous anxiety. In that same room was another man, also waiting feverishly while he smoked a cigarette every three minutes. Presently the smoker caught Brian's eye and smiled a ghastly smile.

"I guess we're both here on the same errand, eh?"

Brian grunted, "Uh!" and resumed his pacing.

"Sure is hell waiting, isn't it?" persisted the other. "My name's Roark."

"Yeah. Hell," Brian agreed.

"Mine's going to be a boy, I hope. We'll name him Orville Roark."

Brian stared at Roark as if seeing him for the first time, realizing he had an expectant father to deal with. Knowing that misery loves company, he permitted Roark to go on believing Brian, too, was expecting an addition to his family.

They fell to talking. Roark was pitifully eager to make friends, anything to get his mind off what was happening; Brian humored him. In fifteen minutes they were pals of long standing, with promises on both sides to have regular reunions with their progeny at five-year intervals.

Eventually a nurse came to the door and beckoned Roark. Brian trailed along to see what the young Roark looked like. He got the shock of his life.

For Roark had spawned a monster. Cuddled in a nurse's arms, apparently healthy and thriving, was the ugliest human thing Brian had ever seen. Scrawny arms and legs, it was thin-chested even for a baby. While the boy's head was enormous, so large that it seemed impossible for the pipe-stem neck ever to support it. Roark went white.

"Gosh," said Brian in clumsy sympathy. "I'll bet he's got a lot of brains there. Maybe he's a budding genius." But brachycephalic was the word that lay in back of his mind.

Roark took it gamely. "Maybe he'll be better looking as he gets older. Hope you have better luck, old man."

**P**RESENTLY word came that Brian's sister was out of danger, and the Roarks passed out of his life for twenty years. But not out of mind. Somehow, with disturbing persistence, a hunch nagged at Brian. It was silly, for there was no conceivable connection; yet the editor couldn't help wondering if he hadn't witnessed another episode in that shadowy, elusive story that he knew lurked just

beyond his reach.

Brian was right about that. Strange young Orville Roark, in a sense, eventually was to play the role of hero in this story.

However innocuous the prologue may have been, the occurrence one morning in the late spring of '44, which stunned the eastern seaboard and sent downtown Manhattan into a screaming bedlam, really raised the curtain on that strangest of melodramas with a bang.

Brian was arguing with Charley Simons, young sports cub, about his swindle sheet, when a shadow suddenly darkened the window behind his desk. They stared at each other; the *Argus* City Room is six stories above street level. Simultaneously they were conscious of a droning roar, growing ever louder. Two more shadows flickered across the window and vanished as they scrambled to see what was what.

"Air maneuvers!" someone yelled thoughtlessly, and was promptly laughed down.

Brian and Simons reached the window together and looked out gaping at the strangest sight man has ever seen along Manhattan's streets. Wings flickering, filling the air with a tremendous low vibration that put chills down a man's spine, hundreds upon hundreds of gigantic wasps were flying in ragged formation about two hundred feet above street level. They were not ordinary wasps; they were easily three feet long, scarlet and brown—a veritable incarnation of evil.

Windows all along the street were filled with shocked observers. Below, in the pedestrian crowds, the progress of the wasp vanguard was marked by a long wave of upturning faces like froth on dark waters. In seconds, from building to building, the street was filled with the droning monsters, flying steadily without sideward glance to some unguessed destination. The sky was darkened.

Panic turned vehicular traffic into a terrible snarl. Though not a soul had yet been injured, bellows and screams of fright resounded for blocks in either direction. Presently a gun-

shot crashed, then another. Some policeman with more courage than brains was firing into the massed ranks of the invaders. He could hardly have missed. One of them dropped like a stone, dead before he struck the rapidly clearing sidewalks of the avenue.

It might have been a prearranged signal. As at a command, the huge wasps suddenly broke their formation. The majority of them dove like pursuit planes, shrilling down upon the crowds of fleeing people. Others turned their attention to the easy targets made by heads and shoulders of rubber-necks leaning from office buildings.

Directly across from the *Argus* a young girl was attacked by one of the scarlet horrors. She was paralyzed with terror. The giant wasp simply wrapped its hideous legs and flexible body completely around her head and neck. Then something black and sharp ripped out of the thing's abdomen and pierced her cheeks clean through. The girl dropped as if shot, out of sight behind the sill.

Young Simons turned away, pale, sick.

But there was no time for that. A scarlet squadron wheeled directly at the *Argus* offices. Furiously everyone fell to slamming windows and drawing shades to discourage any attempts to crash through the glass itself. The office girls were screaming; people ran madly to and fro.

ONLY Brian forgot to aid in the defense. Instead, he stood before the opened window with his arms outspread, face lighted with joy.

"I knew it!" he cried. "I knew something would come like this!"

It was queer, but undeniably true. Brian's uncanny intuition had somehow realized that this visitation was a part of that complex pattern of unexplainable events that were fitting themselves together to make what he thought of as "his story."

Brian's hesitation nearly cost him his life. Through that one open window a red and brown demon poured through like a thunderbolt. Its wings slapped across the editor's face like an

open palm, and six inches of jagged black sword, dripping with venom, flashed under his nose.

All hell broke loose inside the office then as everyone battled each other trying to get out to the safety of corridors and elevators. Charley Simons was the only one in the mob who spared a look back to see if Tom Brian were all right. He wasn't.

He was down on his knees fighting for his life.

The shock of the wasp in flight must have been enough to stagger him off-balance, and now he was hammering with one fist at the monstrous thing that crawled over his back and shoulder, probing at his clothing in an effort to get that ghastly stinger home.

Simons, with more guts than he ever dreamed he possessed, turned back. He grabbed the thing with both hands about the thorax and yanked it bodily away from Brian. He tried to smash it by hurling it against the wall, but the wasp simply spread its wings and zoomed back to the attack. Frantic, Simons seized a typewriter and heaved. By a miracle, he scored a bull's-eye, mashing the wasp's head against the floor.

Ugly, pus-colored liquid dripped stickily onto the floor; the odor was sharp, vinegary.

Brian lurched to his feet, grabbed the phone. "Press room!" he yelled. "Harry? . . . Hold your front page for the story of a lifetime. Listen! Here's your lead: Giant Wasps Invade Downtown New York. Get it? I want an extra on the streets in thirty minutes. Copy'll be down soon as some o' these yellow-bellied reporters o' mine get back to work up here!"

Suddenly Brian's face went blue. He staggered, would have fallen but for Simons' supporting arm.

"Good lord!" the latter exclaimed. "Did that thing nick you?"

Brian grinned, ghastly. "You always were a punk leg-man, Simons. Always gettin' scooped . . . Best thing you ever did with a typewriter was when you b-bashed in that jigger." He pointed at the wasp. "But as usual, too late . . . Sorry, keed. Good luck . . ." He sagged like an empty

sack in Simons' arms. On the side of his throat were twin punctures, now dreadfully swollen and blackened. Somebody was in line for promotion to the post of Managing Editor.

## CHAPTER II

### *Changing World*

**F**OR three days the "Madness in Manhattan," as the yellow rags dubbed it, raged on. Police riot squads tore up and down the streets answering calls from different parts of the city being besieged by the scarlet wasps.

Gunfire crackled intermittently day and night. Fire trucks also thundered about town with sirens screaming, as it was discovered that a good stiff stream of water was more effective on the enemy than a machine-gun. Smoke bombs left a dirty pall over the city. Eventually the army was called out and did yeoman service with gas and flame-throwers.

For a while the wasps pretty much held their own, giving as good as they got whenever they caught a pedestrian out alone and unarmed. But eventually the organized resistance began to take its toll. On the fourth day, as if by pre-arrangement, every single scarlet-and-brown monster in New York gathered in a humming cloud high over Randall's Island, than shot purposefully south along the Jersey coast. They were never heard of alive again.

Scattered reports trickled in of an occasional wasp being found dead—washed in by the surf, or clinging lifeless to a tree somewhere.

There was no great rejoicing in New York at the lifting of the weird siege. Reaction simply left people with chattering teeth, grinning foolishly and thanking God and getting quietly drunk.

Besides, there was a grim job still to be done. A scientist had discovered, in the dead body of some bum that had been caught out one night in the Park, a host of tiny pink grains. Evidently

one of the scarlet wasps, in the manner of wasps since time immemorial, had dug a hole in his paralyzed victim and deposited eggs therein.

At once the mayor made official proclamation that every person killed during the invasion must be cremated. No gravestone must be left unturned to make sure that no wasp eggs remained. A repetition of the scarlet horror was thoroughly guarded against as the ugly business of exhumation went on apace, and crematories did a rushing trade.

At the *Argus* things went on as usual in a mechanical fashion; a newspaper has no way to go into mourning or show respect when its M. E. lies at death's door, victim of his own enthusiasm, a newspaperman almost literally to his last breath.

Besides, the *Argus* had something else on its hands, the daughter of Tom Brian. She was twelve years old, freckle-faced and scrawny, distinguished by an incredible self-possession in the face of disaster.

"I intend," she announced calmly, "to complete my education and then take my father's place on the *Argus*. I shall devote my life to unraveling the mystery of the wasps, and avenging my father."

"Shucks, youngster," someone said, though they all knew Brian's entire body lay paralyzed, except for head and eyes. "The Old Man'll have plenty to say about that. He ain't dead yet, an' he's a whiz at doin' his own avenging. Wait'll he gets back—you'll see."

Youthful Henrietta Brian confounded the whole staff with scarcely a hint of moisture in her blue eyes, only a hint of unsteadiness about her chin.

"The doctors say my father hasn't a chance to live," she said. "We shall never see him again."

It was a devastating refusal of sympathy of any kind, repugnant in one so young. The staff, so eager to console and help, had their gifts thrown back in their faces; they didn't care very much for Henrietta in that moment.

And yet, in her unpredictable way,

that ugly duckling was destined to be the heroine, of sorts.

**T**OM Brian, medical opinion to the contrary notwithstanding, did not die. Instead, there was a hiatus of sixteen years agonizingly snipped out of the middle of his life. For three years he was in an iron lung before his chest muscles regained their use.

For five more years he was still a hopeless, drooling paralytic, barely able to draw the breath of life and swallow the semi-liquid nourishment that kept him alive. Then true recovery began. First his withered right arm began to stir, fingers twitching as if grasping eagerly for the life that had been so long absent from them. Then the right leg. And gradually, Tom Brian returned to the land of the living.

In an Arizona sanitarium he learned the use of his hands again, to swim, to walk with a cane. And during those final, glorious years, Brian developed himself once more to the trim, hard-muscled man he'd been on that morning of May, 1944. His recovery was not so much a medical victory as a triumph for the driving urge of curiosity; Brian refused to die till he had solved his particular mystery.

When Tom Brian returned to the world he found the second World War had created a changed world. In the *Argus* building, too, there was change. Scarcely a single one of the old familiar faces had survived the relentless years. Charley Simons, the once cub reporter, was now sports editor. The owner and treasurer were the same as when Brian left. But as for the rest—all new.

Even his own daughter was strange to Tom Brian. At his own request, Henrietta Brian had not seen her father even once during those years of illness. He had been afraid the ghastly sight of her parent in such pitiable condition would be too much of a shock for the youngster. Somehow he'd never ceased thinking of her as a child. And now, when they met again after sixteen, somewhat constrained, it was Brian who received the shock.

Henrietta was now a woman. She was tall and bony. She wore her hair straight, avoided all make-up. She dressed mannishly in tweeds and low-heeled shoes, wore spectacles. She was the homeliest girl Brian had ever seen. With the unconsciously cruel humor of the journalistic world, she was known about the *Argus* offices as "Gorgeous." Even Tom Brian had to laugh.

"What's the idea, keed?" he asked her. "I thought all women wanted to look beautiful. You don't even try."

"The newspaper world," Henrietta replied primly, "is a world of mental achievement, not physical. I deem it unfair to use a woman's wiles when competing with men."

Brian stared, wondering what sort of species he had sired, then grunted and gave up. After all, the girl might be right. She had won her spurs as an *Argus* reporter, was rated highly on the staff. Maybe she knew what she was doing, after all.

Anyhow, Brian had his hands full with the tremendous task of catching up with the world after a sixteen-year absence. He found, to his satisfaction, that the biggest newspaper story of the century was still the same one that had almost killed him.

Not the giant wasps, of course; they were long dead and gone. But manifestations of the same kind were occurring all over the world, had been ever since Brian went away. Sometimes months would pass without a sign of abnormality. Then, without the slightest warning, some fantastic life-form would spring up—in Buenos Aires, or Johannesburg, or Mexico City—to baffle scientific research and shock the population.

**N**OT all these manifestations were harmful; in fact, most of them were simply strange, innocuous but outré, outside of all normal human experience. The mystery of it, the constant wondering what would be next, where it would strike, was a nerve-racking thing that sapped the vitality of the people.

Berlin, Brian learned, a short time ago had suffered a decimating epidemic. Doctors found the disease to

be caused by an entirely unknown and highly evolved bacteria which defied control. The people were in terror of some strange plague that might sweep through all of the country. But two factors eased the tension. First, the epidemic did not spread outside of Berlin and its environs. The rest of the country seemed strangely immune. Secondly, German doctors stumbled on a cure. Provided the patient was not too far gone, all he had to do was leave the city of Berlin. Any other part of Germany sufficed. So long as the patient left the capital, he was soon on the road to recovery.

In Tokyo, the month of Brian's return to the *Argus*, as a feature writer, three pterodactyls were seen flying over the city. The population dove panic-stricken for gas shelters and bomb-proof cellars, fearing a Chinese stratagem in reprisal for past wrongs. A squadron of Japanese aviators bravely power-dived with machine-guns chattering upon the helpless, blundering reptiles. Two of them were shot down with ridiculous ease. They never had a chance.

Yamagishi, world-famous Japanese paleontologist, examined the victims thoroughly. Next day he declared himself absolutely at a loss to explain the presence of the weird monsters shot from the sky. But they were, beyond any question of doubt, genuine pterodactyls, five million years out of date!

From San Francisco, a few months later, came a deluge of reports of babies being born with short tails. Brian shook his head in bafflement over this item, too. Of course, even in normal times a child is born now and then with a bit of atavistic tail. Once in a long while such an event breaks into print, but mostly stories like that are killed, because they have no news value and would be a source of embarrassment to the parents of the child in question. But when dozens of them arrive with tails, hundreds in the space of a month—

In Los Angeles a new species of beetle was discovered with a great appetite for the dread cottony cushion scale. Horticulturists were overjoyed,

until they learned that the new beetle could survive, apparently, nowhere outside of Los Angeles and its suburbs.

All these incidents, and many more, Brian charted. Nightly he labored over it, rearranging the sequence, striving with the singleness of purpose of a monomaniac to find connecting threads, a hint as to the cause of these events. He was a wild man; the story always slipped just beyond his grasp. He had a pattern without meaning.

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## CHAPTER III

### *Headline Stories*

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**G**REATER men than Tom Brian were savagely racking their brains to explain this tremendous series of unbelievable occurrences all over the world. Every scientist of any note had had a fling at telling the world his ideas about the situation.

The *Argus*, going in strongly for the scientific angle, printed every opinion they got their hands on. A few sensationalists declared they were passing through a portion of space that was striated, so to speak, with strains and warps. Whenever the Earth struck one of these warps, Time was folded over upon itself, permitting creatures from both future and past to enter the present.

"My lord!" Brian snorted when he read that. "I could top that with one finger! In fact, I will! For the Sunday supplement!"

So Brian hammered out an article for the supplement, the yellowest kind of journalism he knew how to write. He pounded out:

#### IS IT AN INVASION FROM MARS?

Have We Been in a War of Attrition for 20 Years Unknowing? Were the giant wasps, the Berlin epidemic, and other disasters the result of strange, extraplanetary vibrations projected upon the Earth by an inimical race of Martians?

There were plenty of facts to bolster this theory. Brian pointed out

that all the fantastic life-forms had appeared in large cities, without exception. Didn't this indicate some intelligent controlling force, deliberately selecting the centers of population for attack? Then, again, Brian made much of the fact that none of the alien creatures seemed able to survive very long. How natural, if they were spawn of another planet, another environment.

Brian went along in this vein for three thousand words of utter rot which neither he nor any other sensible person believed for a moment. And yet, Brian was never closer to the truth of the whole matter; nor was he, paradoxically, ever more lamentably wrong.

Journalistic ethics had changed during Brian's absence to a more sober and quiet judiciousness. However, the fact that Tom Brian wrote the article made it almost mandatory that the *Argus* print it. With some misgivings, this was done, a reversion to sensationalism distasteful to the entire organization.

Henrietta Brian was the only one on the staff with courage to explain things to Brian.

"Dad, you haven't caught up yet with policy changes," she said. "Yellow journalism is dead, Dad. We don't handle news the way you used to sixteen years ago. We're interested in fact, in truth. Now this story of yours— Don't you see how ridiculous it is? This isn't the old stuff about a doom released upon the world.

"Invasion from Mars! Why, the very fact that these crazy things are all happening in a few of the larger cities disproves the theory immediately. It would be utterly impossible, considering the different rates of speed of our respective orbits around the sun, and the fact that our globe spins around at a thousand miles an hour, for any Martian marksman," she choked indignantly over the phrase, "to call his shots the way you claim."

Brian grinned. "Sure, keed. Granted. But during my little vacation the *Argus* boys seem to've forgotten the main idea of running a paper. In the old days I had a motto tacked over my

desk. It read: 'Get the story, then make it dramatic. Our business is to sell newspapers.' Don't you see? Getting the facts is only half the battle.

"You're full of journalism school ideals. You've forgotten this is a business. There's hundreds of newsboys, dozens of reporters, linotype men, printers, advertising salesmen, copy boys, rewrite men, stenos, clerks dependent on our ability to make people want to buy this paper. And readers don't want to be educated; they want to be shocked, frightened— Look here."

**B**RIAN slid a slip of paper under his daughter's nose. It was a report from the circulation department. Last Sunday's issue had sold an increase of 5,700 copies over the best Sunday in the past five years. Henrietta gasped. She stared at "Tabloid Tom" Brian with new eyes, struggling with a new conception. Wordlessly she walked back to her own desk to think.

Brian promptly wrote another yarn for next Sunday's supplement:

#### IS ATLANTIS RISING AGAIN?

Has the animal life of the famed lost continent of Atlantis been trapped for eons beneath the earth's crust, undergoing strange evolutionary development, to be released now through earthquake-riven fissures?

The pterodactyls figured prominently in this new article. They were a perfect example of how evolution might be arrested for centuries in subsurface caverns. Besides, how else could you explain them?

The world had been singularly free from earthquakes recently, but that made no difference to *Argus* readers. Circulation jumped 7,900 that Sunday. Tom Brian's stuff was no longer printed with misgivings.

Henrietta, too, was converted. She came with apologies to her father.

"Dad, I've been holding out on you. When you left here so many years ago, I sort of swore an oath," she blushed faintly as she spoke, "to devote my life to avenging you, to destroy whatever this thing is that struck you down and has caused so much misery and bewil-

derment all over the world.

"I've been working on it ever since. Mapping out all the manifestations. Charting everything abnormal that looked as if it might be part of—part of it. Making a consensus of scientific opinion. . . Just like you've been doing. Only I've got lots of dope you haven't got. Part of this thing I've got figured out." She was a little girl again, eager, excited.

Brian smiled hugely. "So you've finally decided your old man hasn't lost his grip after all, eh? That he's still got brains enough left to be of some use in this battle, eh?" He leaned back, luxuriating in the knowledge that at last he and daughter were close again, closer to one another than they'd ever been before. "Okay, keed. Shoot."

"Well, all these weird life-forms popping up in big cities all over are pure and simple mutations! Most scientists agree that evolution has gone haywire all at once in a few given spots!"

Brian thought that one over.

"The wasps, the epidemics—yes, a lot of this stuff could be evolutionary advances," he said. "Creatures born centuries before their time. But what about the pterodactyls, an' the babies with tails? Those things all point backwards on—"

"But of course. Don't you see? Selective, or natural, evolution is always definitely progressive or, rarely, retrogressive. It moves slowly, and always along easily predicted lines. But a mutation follows no law except that of change. It can be either forward or backward, as in the case of the pterodactyls, or off at a tangent.

"The average mutant, of course, hasn't much chance to survive because he's born in an environment for which he's not intended. When they occur in nature they quickly succumb."

**B**RIAN surveyed his daughter admiringly.

"Smart headwork, keed. I hand it to you. I suppose you've been keeping quiet about this stuff till you got the rest of the answers?"

The girl frowned. "I can go a lit-

tle further. The theory of what causes mutation is pretty well established. A cosmic ray particle striking a gene is what does the trick. Of course, comparatively few cosmic rays ever reach the Earth's surface. The sun's magnetic field stops some of them; maybe they're filtered out by one thing or another. I don't know.

"The odds against one cosmic ray particle striking an infinitesimal gene, a gene which has the latent power of mutation, and a gene subsequently involved in reproduction, are billions to one. That's why mutations, in the course of history, are so rare."

"Then you figure this wacky mutation business just means we're being bombarded by an abnormal amount of cosmic rays?" he asked. "Why not an explosion of a super-nova in space or something like that?"

Henrietta slumped in dejection. "No. That doesn't explain why these things occur only in large cities. No one can explain that. I get just so far, then run against a blank wall. There's a smashing story here, but the vital parts are missing."

Brian fiddled with a pencil. "Look. This stuff is a boiled down consensus of scientific opinion, you said. It's funny there isn't some man, somewhere, with gumption to figure out the answers . . ."

"There is. Orville Roark. The greatest genius that ever lived. Hundreds of years before his time. But he's a recluse, living in a Chicago penthouse with his father and a million dollars. No reporter has ever had an interview with him. He just couldn't be bothered with mundane things like a leg-man trying to find out why his brother-in-law's baby was born with a six-inch tail . . . You wouldn't know about him, dad. He must have been a baby himself when you—went away . . ."

Then Tom Brian had a vision, a premonition that sent anticipatory thrills racing down his spine. Luck had finally struck him. The end was in sight—with an *Argus* exclusive on the greatest story of modern times. By the sheerest coincidence he, Tom Brian, was one of the few men in the

world who had access to the inaccessible Orville Roark.

Things moved swiftly. Brian wrote Roark's father, reminded him of the circumstances of Orville's birth, of their promises to have regular reunions. He explained his years of silence (swiftly he counted: the kid was born about a year before the wasp invasion, then sixteen years, illness, then a year or so back in harness—Orville was still probably in his late teens) laid it on thick about how set apart he felt after returning to the world, how he longed to re-establish old contacts. He ended by inviting the Roarks to New York for a week.

Without a single twinge of conscience Brian mailed the letter. The *Argus* could afford what little expense this might cost. And the cause—greatest of all stories—to Brian's mind justified any deception, any subterfuge.

**T**HE epochal meeting destined to change the course of many lives and rid the earth of a terrible infestation occurred on Thanksgiving Day. Brian, as he welcomed his two guests—Mrs. Roark was not present—took one look at Orville and decided he had never in his life seen a lonelier man, for all his youthfulness.

Orville was indeed a man apart from his world. He was tall, but not strong. His head was still much too large for his rather frail shoulders. His skin was delicate and blue-veined; apparently he hadn't a hair on his body save for the dry, dust-colored mop on his head.

Tom Brian knew he was looking upon a man without a single real friend. Orville Roark had lived an abnormal childhood. Instead of playing ball with the kids in the next block, Orville's super-intellect had been busy creating a new system of philosophy. While in college, whence he graduated at fifteen with Ph.D. and B.Sc., he had spent more of his idle hours brilliantly extending and revising the Einsteinian theories almost beyond human conception.

He had grown up a freak of nature, too, with only four toes on each foot, no wisdom teeth. Brian remembered



him quoted once as saying:

"I am devoid of those vestigial evolutionary remnants known as emotions, for the most part. I am a freak, a man born with the sum total of all evolutionary advance for centuries to come vested in me. I seldom fear or hate or feel excitement or love. I am a thinking machine."

Tom Brian, looking deep into young Roark's fathomless eyes, which seemed to contain within them infinite power and infinite knowledge of the uttermost secrets of the Universe, could well believe it.

The dinner went smoothly. Brian and the elder Roark got along famously, while Orville, patently disinterested in most of what ordinary mortals did, amused himself faintly by intercepting Henrietta's covert stares.

After the meal, Brian got down to business.

"I won't kid you, Roark," he said. "I'd an ulterior motive in inviting you here. My daughter and I have a hunch Orville may be able to give us the key to the biggest newspaper story of our times."

"And that is—?"

"These—these crazy things that've been occurring the past twenty years or so in our largest cities. You know—the giant wasps, and the epidemics, those Japanese pterodactyls, all that stuff.

"The authorities seem to agree only on one thing: they don't know what the devil it's all about. Now the kid and I figure it's all mutation, caused by a lot of cosmic rays busting through, maybe. Beyond that we can't make the grade, but if Orville would put those brains of his to work on it . . ." Brian looked at the Roarks hopefully.

Orville crossed his legs placidly.

"That problem, Mr. Brian, is elementary," he said. "As a child I knew the answer. But I've no intention of telling you or anyone else, now or ever!"

**B**RIAN gasped; his heart pounded. Then he sank back half sick with despair. There it was again—all the pieces of the puzzle together, the key

at hand, but refusing to open the lock! Brian groaned aloud in his frustration, looked appealingly at the elder Roark. But the latter simply shrugged whimsically to indicate he had no control over his amazing offspring.

"But look, Orville," Brian resumed. "This means an awful lot to me. I can't imagine any reason why you shouldn't tell. And there's every reason why you should. The thing's a plague upon humanity. It's cost millions in the past two decades, in lives and property damage.

"Who can say when something else like the wasps or the epidemics or worse might not come along to ruin another beautiful city? Maybe if you'd tell us the cause of these things, our scientific minds might be able to put a stop to 'em." Brian put every emotion into his appeal; he was in fine voice that evening.

Orville permitted himself a faint smile.

"Ending the nuisances, Mr. Brian, would be even simpler than explaining their source. But to tell you would be to sign my own death warrant!"

Brian leaped from his chair in restrained frenzy. It was cruel, the way Fate treated him. Every angle he uncovered made the story more terrific than ever; yet the further he dug toward the solution, the more impossible it seemed of success. Only warning glances from Roark and Henrietta prevented him from further haranguing Orville.

"You can't do a thing with him now, Dad," the girl whispered to him. "But wait. We have the rest of the week. And I have a plan."

## CHAPTER IV

### *Revelation*

**N**EXT morning at the office she divulged her idea. It was beautifully simple. "I shall vamp Orville," she stated with the incredible confidence of one who speaks whereof she knows not. "He will fall for me and I shall get the story out of him."

Brian was speechless for a full minute as he contemplated the soul-shaking thought of Orville Roark, freak of nature, romancing with lean and homely Henrietta Brian. Wild laughter bubbled up in Brian's throat.

And yet— It has been said Tom Brian would sell his soul for a story. It happened that his soul was not a marketable chattel in this instance. But it was also true that Orville Roark might care to purchase Henrietta for the price that he and only he could pay.

"It's your own creed, Dad," the girl reminded. "Get the story!"

So Brian choked down his laughter, and put aside the thought of the humiliation that might soon be his to bear.

"Okey Gorgeous," he said. "Give it a whirl, anyhow. What can we lose?"

Before the week was half over the entire *Argus* staff knew what was going on. They were convulsed. Henrietta took a terrific kidding. Brian was forever bursting in on mock balcony scenes. The idea of the two homeliest people in New York having an affair was just too much.

A gossip columnist of a rival daily also got wind of it.

"What local newspaper gal," he wrote, "daughter of a w.k. former editor who was the sensation of the tabloids two decades ago, is panicking the hot spots as she makes the nightly rounds on the arm of none other than what famous mental giant?"

Brian writhed. It was a new sensation to see his only child pilloried on the altar of his own ambition. This pathetic parody of romance was the most pitiful thing Brian had ever seen. Two of life's physical misfits, one of them set completely apart from his world . . .

But the amazing part of the whole plot was that it worked. No doubt genuine affection from someone more nearly his own age, a new experience for Orville, had kindled a response in him. On the last night of the Roark's visit, Tom Brian and his daughter were asked to a family conference. Orville and his father awaited them.

"Henrietta," commenced Orville without preamble, "has persuaded me

to reveal the source of the evolutionary disturbances you asked about."

Electric thrills shot through Brian. The scoop of the century!

"But," warned Orville, "I make these revelations in strict confidence, because I was not joking when I said it would seal my death warrant to make these disclosures public. Henrietta assures me you are a man of honor; therefore, I will accept your word that you will not reveal what I'm about to tell you till I give you permission."

Brian promised. He would have promised anything at that moment, trusting his facile Irish tongue would get him out of the obligation later.

"Very well," Orville leaned back, gathering his thoughts. "You know these manifestations are mutations. You know they are caused by cosmic rays bombarding the earth in increased numbers. To understand why this has come to pass, you must understand how the atmosphere acts as a filter to strain out cosmic rays.

"Even in the early days of cosmic ray investigation, Millikan's puny balloons gave us a clue. He sent up Geiger counters, you know, and a camera to photograph their operations. Though the balloons only went up a few thousand feet, the counters did not increase their registering at a regular rate—as would be the case if the atmosphere as a whole acted as a filter.

"Instead, after passing a certain zone, the recording jumped in intensity noticeably. In other words, certain zones of the upper air act as cosmic ray filters . . . More recently, Goddard's 'laboratory rockets' proved this definitely when they were shot clear into the ionosphere. It is the so-called Kennelly-Heaviside Layer which acts as prime protection against cosmic rays."

"How?"

"Very simple. The Heaviside Layer is composed of ionized gas and frozen hydrogen—"

"Frozen hydrogen—a solid—suspended in air?" asked Henrietta.

**A**N ordinary human might have shown annoyance at the constant

interruption, but Orville simply shifted to a more comfortable position and droned on with his exposition.

"Even frozen hydrogen is very light, Henrietta. If it gradually tends to fall, no doubt it drops into a warmer stratum of air, melts, and rises again to its proper level . . .

"Now! Frozen hydrogen has remarkable powers of absorption. Considering that the Heaviside Layer extends some thirty miles in height, all dotted through with countless specks of frozen hydrogen, it's no wonder the great proportion of cosmic rays are filtered out before they reach the Earth."

"Ah! The light dawns," Brian interpolated. "Something's happened to this Heaviside Layer so she don't filter any more. Right?"

"Precisely. And with cosmic rays pouring in undiminished, mutation has run rampant."

"Sure, I can see that. But the point is—what the devil *is* it that's messed up the Heaviside Layer?" Brian fidgeted.

"Patience, Mr. Brian. The inefficacy of the Heaviside Layer as a filter is attributable to the existence, in many of the major cities of the world, of super-powerful radio broadcasting stations."

Brian fought his way through the polysyllabics and found the meaning of Roark's words. The meaning, but not the sense. He scowled, shaking his head. Orville continued.

"Radio waves, of course, carry energy. Even twenty-five years ago the primitive radio station broadcast enough energy to make the lights glow in a nearby house. Short waves, for instance, can pop corn when it is enclosed in a cake of ice. The new Raedix tubes, of course, send out waves carrying infinitely more energy than the earlier types.

"In America, where we make a fetish of using the newest and most powerful of everything, we have many so-called super-broadcasters. In Berlin they have the tremendously powerful station which broadcasts continual propaganda to the South American countries. And so on all over the world.

"The result has been, twenty-four hours a day, a perpetual bombardment of the Heaviside Layer with energy-carrying rays that have cleared out much of the frozen hydrogen up there. This wasn't accomplished in a day or a month, or even a year. But many years of unceasing broadcast have turned the trick."

Brian nodded in dazed comprehension as the magnitude of the constant war of physical forces dawned on him.

"Sure," he said thoughtfully. "The early skip-distance was the tip-off. Only everyone forgot about it."

Then another thought struck him. "But why are these—these circles of mutation so restricted? Because the radio-waves gradually peter out? In other words, because they've got energy enough to do their stuff straight above the station, where they only have to carry some forty miles, but farther away on an angle the distance is too much for 'em?"

Orville nodded. "Exactly."

"Well, so what's the answer?" Brian scratched his head.

"It is ridiculously simple. Shut off the broadcast for regular periods. The natural conditions of the upper stratosphere will quickly reassert themselves and form the protective shield again."

**B**RIAN glanced about in bewilderment. "But that can't hurt anybody! What's all this talk about signing death warrants and such?"

"Just this. All mutants born and raised under the influence of this access of cosmic rays must live in that influence or die. They, or rather, we, absorb cosmic energy.

"Remember what happened to the giant wasps as soon as they were removed from the immediate vicinity of New York's four super radio stations, and out of range of the cosmic bombardment. They were never heard from again.

"Those stricken in the various epidemics, as in Berlin, were cured as soon as they left the circles of mutation, as you call them. The bacteria simply died off. So it would be with me. Shut off the radio waves that per-

mit life to be brought to me, and I die in three months." His tone was cold, factual.

Henrietta gave a tiny sob of pity; her eyes were round and tender. Tom Brian, on the other hand, was half sick with a resurgence of frustration that left him dizzy. Here, on a platter, was the story of the century, and he couldn't use it!

It was maddening. It was like trying to eat honey with a fork. By the time it reached his lips, the honey had dripped away, leaving only the tantalizing sweetness to whet his desire for more. Characteristically, Brian never considered an outright breaking of his promise; instead, he sought devious methods to escape from its bonds.

After pacing the room vigorously for a while, Brian snapped a question at Orville.

"I hear you're wealthy?"

Orville nodded, almost expressing sympathy. Even the thinking machine did not like to see mental suffering.

"Yes. Royalties on a few minor inventions of mine have made us independent."

Brian resumed his march around the walls. Finally he slowed, with a glint in his eye, and he came to rest before Orville Roark.

"Now look," he commenced, packing his rich Irish voice with every ounce of power and persuasiveness at his command. "Maybe I can give you a different slant on this set-up . . . All Nature is a system of checks and balances. You know that better'n I do. For instance, take rabbit; they'd overrun the country and be terrific pests if it wasn't for their natural enemies like coyotes. Or take aphids, or scale, or other orchard insects; they're kept under control by the lady-bird beetles. And so on.

"Now, when Nature goes haywire, she generally goes crazy in a smart way. She includes in her craziness some element that'll eventually make everything okay again. That's what you are, Orville. Nature's balance. You're part an' parcel of this whole gigantic manifestation. Same as it's a cop's duty to arrest a murderer, so is it *your* duty to give your knowledge

to the world and stop this thing before it's too late, before some terrible plague is spawned that wipes out an entire city.

"We've been lucky so far; most of the mutants have been harmless. But there's no telling what monstrous thing might pop up any day . . . Orville, you've got to speak out. That's why you're here; it's your whole reason for existence. Some Greater Law included you in their weird scheme of things for that express purpose."

**B**RIAN'S breath gave out in this burst of oratory, and he leaned back to watch calculatingly the effect of his speech.

It was Orville Roark's turn to pace the floor, which he did with a curious bird-like walk, his head bobbing lightly on his slim neck. Five minutes of silence passed. Finally, he paused and looked at Brian.

"You asked if I were wealthy," he said slowly. "Why?"

Brian smiled like the cat beside the empty bird cage.

"Because there's no need for you to die. Just set up a powerful station in some remote spot where other people won't be endangered, and you can live out your days in peace."

"Exile!" Orville was bitter.

"Exile for you, or possible death for thousands. Yours is the choice."

Then it was that Henrietta Brian threw herself into the breach, made the choice for Orville.

"What about ordinary people," she asked, "living in the cosmic ray influence?"

"Rapid aging. Death before their normal span, probably." Orville shrugged. "No doubt the death rate curves of the afflicted cities would show a recent sharp upturn, if anyone thought to look."

"However," persisted the girl, "I guess you could devise some sort of protective clothing—in case someone wanted to share your exile with you."

The two stared at each other wordlessly. Orville nodded slowly. "Yes, no doubt I could. If someone really wanted to come with me."

Tom Brian started up, fingers whit-

ening on the chair arms. He seemed suddenly aged.

"Henrietta," he cried. "Wait! It'll be like Orville says. Exile! Hundreds of miles from civilization. Nobody'll even visit you for months or years at a time . . ."

She smiled. "Nevertheless, I'm ready to go. After all, Dad, it's part of the code you've taught me. I got the story. Now I'm making it dramatic. What a lead! Girl Reporter Joins Genius in

Exile to Save Humanity!" She patted him gently on the arm. "And if you're worrying about me—don't. We'll be happy, Orville and I," she said.

The two mis-matched people faced one another with the vision of far places and endless years in their eyes. Up to that moment Orville Roark had always accepted the geometrical definition of osculation: the point where like curves meet. Now he learned another meaning of the term.



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By **MANLY WADE WELLMAN**

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## IF YOU WANT THE LADIES TO LIKE YOU



—HOME AGAIN  
SWEETS—AND  
HOW KISSABLE  
YOU LOOK!

—YOU, TOO,  
DEAR—IT WAS  
NICE OF YOU  
TO SHAVE AGAIN  
BEFORE COMING  
HOME—



—DON'T BE SILLY!  
I DIDN'T—I USED THE  
SAMPLE OF LISTERINE  
SHAVING CREAM YOU  
SENT FOR—IT'S A  
WONDER!

—IT WOULD BE  
—LISTERINE  
PRODUCTS  
ARE SO WORTH  
WHILE!



—NO POOLING SHEETS—I NEVER  
HAD SUCH A SHAVE! THAT WRY  
BEARD JUST SEEMED TO FALL OFF!  
—AND NO IRRITATION AFTER—I'M  
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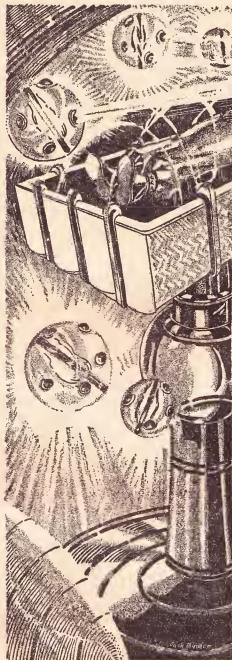
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# THE THING FROM ANTARES



Warren came to on a raised dais, his body held down by a mesh of glittering lines

Les Warren, Explorer of the Spaceways, Fights a Lone Battle to Save Earth from Galactic Raiders

By **MYER KRULFELD**

*Author of "The Moon Pit," etc.*

**T**HE sudden lurch of the *Comet* which accompanied the shrill whine of the alarm buzzers jerked Les Warren from sleep. His glance went to the space ship's visual plate, a dark oval of glass directly in front of the navigator's chair in which he had dozed off. Suddenly awake, a chill prickling his spine, he stared at the strange object which blazed from the center of the plate.

It was perfectly spherical, and about the size of an apple on the screen. Every detail was sharply etched in a subtly glowing light that made a nimbus around it. Round black spots were scattered over it like monstrous eyes. Almost invisible against the star-scattered blackness of space, faint purple

beams shot out from the black spots, merging with the empty blackness as they went away from the glowing sphere.

It was like no known human vessel. No ship built by men had ever had that shape or that strange method of propulsion, apparently independent of rocket blasts. It was one of two things—an outlaw ship built unknown to the space authorities and powered by new methods, or an alien vessel come from the cold far depths of space outside the solar system!

Even as he watched it seemed to grow larger on the visual plate, glowing more brightly, the purple beams more intense. His fingers flew to the controls, manipulated the levers and switches which controlled the blast jets. With a thunderous roar, energy crashed from the side rocket and the *Comet* veered sharply from her course.

Like a startled fish, flanks silvery in the distant light from the sun, the Earthly space ship turned and fled. Blast after blast burst from her rear rockets. She shook and quivered under the strain of it, while Warren sat tensely staring at the round, glowing image on the visual plate, erratically shifting with the ship's changing direction. It steadied as the *Comet* settled into her new course.

The rhythmic shudder of the ship became greater as the blasts became more and more rapid under Warren's guiding fingers. A low metallic whine quavered through the metal of the hull, though the ship rose rapidly to a sustained note under the high vibration. Hard blue eyes intent on the image of the pursuer, Warren paid no heed. Was the *Comet* fast enough to escape?

Minute melted imperceptibly into minute. Slowly the image on the visual plate changed, swelled larger. The alien vessel from space was fast overtaking him.

There was nothing more he could do. He could not even fight effectively if they were unfriendly. The *Comet* was an exploring vessel headed for the uninhabited planet Saturn, and he carried only a few hand blast-guns, more for emergency propulsion than for fighting.

NOW that it was decided, he was suddenly cool. He pulled out the log of the *Comet* and wrote a detailed account of what had happened, glancing at the rapidly swelling image on the visual plate from time to time as he described the strange vessel and his position in space.

"I am changing my course so that the aliens, if they are dangerous, will have no clue to the position of my home planet," he finished.

He put the ship's log away and then bent over the visual plate. The glowing alien vessel had swollen to vast proportions, filling one-fourth the area of the plate. In fifteen or twenty minutes it would reach the *Comet*.

There was still time for a few preparations. He went to the emergency lock, a small cell of metal directly off the outer air lock. A hurried inspection showed that the space suit which hung there was in good shape, loaded with emergency rations and a synthetic air supply sufficient for a week's stay in space. There was also a small compass, two blast guns for propulsion, and a few odds and ends of tools fastened to a belt around the space suit's middle.

By the time he got into the space suit the alien ship filled the visual plate completely. Even as he watched, several of the black holes in the glowing sphere flared yellow with golden light. A split second later he was hurled violently to the floor as the *Comet* came to a shuddering, quaking stop.

When he got to his feet the aliens had arrived.

One of the gray metallic walls of the navigating chamber glowed suddenly with yellow light, a round patch of it, a patch that grew! Suddenly it was no longer merely round, but a convex and solid thing, like the strangely misty outline of a great golden lens set in the flatness of the wall. The lens pushed forward, grew into a bulbous spherical thing of misty gold.

Another minute and it dropped, hovered near the floor, a sphere about a yard across, hazy and subtly blurred about the edges. In the center of it was a thick purple line which shimmered and sparkled with silent,

rhythmic emissions of energy. It began to drift across the floor toward him.

The walls of the chamber were leprous with other splotches of yellow, splotches that grew and pushed forward and became other spheres. They were around him, silent, all drifting closer in an intent and ominous circle.

His heart hammered thunderously. A cold prickling thrilled through his nerves. Heat came from the things, heat in little dry waves that touched his body like the aching caress of fever. And there was a more subtle radiation, something he could not quite define at first.

Now they were less than a foot away. They were a solid circle around him, the blurred and hazy golden auras interpenetrating one another until they seemed like a single solid mass. Only the purple bars in the centers remained the same, flickering, fading and growing sharper to a definite rhythm.

He stirred. The golden circle stirred with him. He was still in the center. One arm, clumsy and slow within the casing of the space suit, poked out at them. Effortlessly the whole circle swayed and evaded it.

His throat went dry. His tongue seemed swollen, stuck to the roof of his mouth. It was hard to breath. Strange, alien sensations thrilled through the cells of his brain, through the delicate network of his nerves. Something alien was within him, trying to take possession of his brain.

**F**OR a moment he remained like that, frozen. A sudden curse ripped through his lips. Red anger took possession of him. He exploded into action despite the hampering effect of the space suit he wore.

He plowed into the circle, a human animal gone berserk with flailing arms and kicking legs. His hands and feet passed through the golden auras again and again with movements too swift for the massed aliens to escape. Hot prickling passed through the flesh within the aura, followed by a queer numbness that did not seem to impair movement.

Apparently his blows at the golden haze did not harm the spheres. Yet

quite obviously his sudden attack disconcerted them. The circle broke and scattered swiftly into its component spheres. They darted upward over his head, hung there like a flock of great golden toy balloons safe out of his reach.

Eyes glaring, breath hissing through his open mouth and distended nostrils, fingers within the fabric of the space suit twitching, Warren slowly subsided. On his body was a cold sweat. His flesh ached dully where it had passed through the auras of the aliens.

A moment the spheres hung above his head, the purple centers flickering excitedly. Then, suddenly, utterly without warning, one of them flashed down. The aura of it enveloped part of one arm and shoulder. As it touched him the color of it altered, became for an instant the deep red of blood.

A moan of agony bubbled from his lips. His eyes closed and a wave of weakness quivered through his body. It was pure pain, as if every nerve within the red haze had turned suddenly to liquid flame. The sphere darted upward again. His arm hung beside him as useless as a limp, inanimate rag.

Another sphere darted downward to cover his other arm. Another dropped to one foot. Another and still another. . . . Until he became a huddled heap on the floor, moaning and helpless. The red haze around him seemed to turn black. Everything faded from sight and feeling.

Slowly the blackness lifted from his senses. When full clarity came to his mind and eyes he knew that he was not in the *Comet*. The aliens had moved him to their own vessel.

He was on a raised dais, his body held down by an interlaced mesh of glittering and inflexible lines. He was held as fast as a petrified bug in amber. Around and above him were the hazy golden outlines of the spheres.

Their vessel was a vast hollow globe. Shining girders, whether of matter or of energy he could not tell, ran from the inside of the vast curving hull toward the center, where they braced up and held a complicated globular nest of machinery.



From the nest came a constant humming with a faint, regular rhythm to it. It seemed to him, in the few seconds of clear thought that were granted him, that purple pulsations ran through the girders in time with the humming. Probably it was the source of the purple rays which propelled the strange space ship through the cold reaches of interstellar emptiness.

**B**EFORE he could notice more he was plunged again into purgatory. Ten times intensified, it came again, this time a searching, ruthless dissection of his mental processes which almost drove him mad. And this time he could not fight.

He felt he was insane. The purple pulsations within the yellow globes came faster and faster, emitting surges of energy, pulsating in concert. And with each strong surge from them, it was as if a vast hand plucked resistlessly at his brain. Without rhyme or reason thoughts and emotions which had been thrust beneath the level of consciousness came forth, horrible and foul in their nakedness.

Each changing, reasonless emotion and image that came up from the depths of his being he experienced for that moment in which it was uppermost to full intensity. One second he was shrieking with laughter over some obscene picture. The next his face was awed at the breathtaking beauty of space, made of flame and absolute blackness. Again he repeated senseless words whose meaning he had almost forgotten, tags from his long forgotten school days.

At first his will was passive, overwhelmed by the flood of madness, by the potent power of the pulsing purple spots which were the aliens. Then, in revulsion, it began to struggle with the saturnalia raging within him.

Sweat stood out on his face in big drops that rolled down and mingled. His eyes glared. Every muscle in him twitched futilely. His insane laughter would choke in the middle as his will gained the upper hand for a moment, then break out again.

But in the end he was silent, rigid, strained to the breaking point. Never-

theless he was immune to the pulsing energy which tore at the secret places of his mind. The pulsing of the purple spots became swifter, more intense. Filled with triumph, his will held.

At last the violent throbbing of the purple centers within the hazy globes stopped. For a moment Warren lay there, rigid, before he realized that his mind was free. He lay still, panting and relaxed, but still on the alert for another attack.

It did not come. He was conscious of something trying to reach his mind, striving to impress a thought. For an instant he froze into hostility. Then he realized that they were trying to communicate, not to attack. Warily he allowed himself to relax a little more, to try to understand.

Slowly, as the minutes passed, a halting flow of thoughts went between him and the strange monsters. Little by little, periods of clarity broken by exasperating blurs, he learned a few facts.

**T**HEY were alive, but not made of matter. They were composed of electrical energies, meshed together in a complex, frail harmony which was their life, and permitted of sensation, thought, and action. They, proper, were the purple centers of energy that throbbed rhythmically, like the beating of a heart.

The hazy golden globe of energy which surrounded each of them had all the functions which animal life gave over to hands, skin, and the organs of sensation. Through it they acted, felt, heard, saw, tasted, smelled. At will they could alter it so that it could be attracted or repulsed by various forms of energy, one of the forms being that of matter.

Through it they also analyzed the different types of energy, so that they could understand their nature, and how to deal with them. They caught his thoughts by analyzing the faint electrical emanations of his nervous system and brain cells. They made themselves understood by impressing similar electrical impulses upon his brain.

They fed, if the bizarre process

could be called feeding, upon minute quantities of a substance which Warren recognized as radium. The slight loss of energy which accompanied their life process was compensated for by the raw energy poured from the disintegrating radium atoms.

For a long time he tried unsuccessfully to learn the region of space from which they came. At last he received vague descriptions of a star which he recognized as probably being Antares, and was told that it was from a planet of that star that they came.

When he asked why they had left he received no answer. Instead his brain was flooded by insistent questions. He persisted, repeated his question again and again.

They refused to answer, continually bombarded him with questions concerning himself, his kind, his planet. At his refusal to answer a threatening note crept into the electrical emanations. But it was not until they asked if there were large quantities of radium on his home planet that the truth flashed suddenly upon him.

He cursed himself for a fool for not guessing more quickly. What other reason could there be for the perilous journey of the globes through space except desperate necessity? All the available radium on their own stellar system had been used by the Antareans. If they wished to live they had to find another planet containing the strange food upon which their life depended. Among his instruments were a few containing cheap radium salts, which the golden globes had doubtless found.

They sensed his thoughts, tried clumsily to coax him into giving them the location of the Earth. They told him they would find it sooner or later anyway. He realized they were lying. They were too urgent in getting the secret from him. Probably their supply of radium or propulsive power was running low. Time must be an essential factor in their search. The thought stiffened his resolve.

Suddenly and savagely the attack came again, without warning. Fiercely the pulsations from the purple centers of the golden globes darted energy at

him. Again he went through all the stages of violent madness. His features twitched convulsively, contorted between laughter and tears. His mouth opened, poured out a mad babble of nonsense. His limbs twitched, the muscles knotting and loosening as they tried vainly to throw his body about under the restraining bright mesh which held him to the dais.

**H**IS will struggled titanically. His brain was an inferno of conflicting emotions, a stage where his own will and the fierce compulsion of the Antareans battled for dominance over himself. Finally he was once more in a rigid trance, his strained will triumphantly holding in check the careering mad emotions which the invisible pulsations of the Antareans strove to build in him.

But this time the onslaught of the things within the golden globes did not stop. Minutes passed. Hours passed. It seemed to Warren that days and months and years passed, eons, infinite weary stretches of time.

His will began to crack under the strain. Flesh and blood could not withstand the unrelenting emanations. Cold panic came on him as he realized he was beginning to give way. Desperately he strove against the torpor which beckoned so sweetly to his tortured mind.

He conquered for a time, but it came back, more and more insistently. He knew that soon his will would sink back, defeated, would give way to the focused compulsions radiated into his brain by the golden globes.

Sweat cold on his body, heart pounding like a vast drum which threatened to burst, he sought for some way out. Torpor numbed his intelligence, threatened to swamp all feeling in delicious submission. He rallied, fought above the engulfing tide of mental and physical weariness for a last desperate endeavor.

It came to him then, what he must do. His mind stopped its struggling, its vain resistance to the will of the Antareans. It concentrated on a planet and the facts about it—but the planet was not Earth. It was Saturn!

Before his own exploring expedition to that sterile planet he had learned all that human science and the investigations of previous explorers could tell him about it. So he readily told the Antareans its position, its volume, its mass, the distance between its ring and the planet. He added only one thing. The core of the planet, he said, was a vast mass of the heavy metals, including radium. As that falsehood filtered from his brain into the intelligence of the Antareans, the attack upon his brain ceased. The sudden release was too much for his mind, tense to the breaking point. A whirlpool of blackness sucked him into unconsciousness and rest.

When he came to himself he felt weak and helpless. He had been sunk in torpor a long time, how long he could not tell. With his first moment of consciousness he sensed the fact that the globes had turned hostile.

They were about him, as before. But the purple centers no longer pulsed energy into his brain. They were ominously still, as if they had been waiting for him to wake. A little quiver of apprehension went through him. He was too weak now, too weary. What were they going to do?

Coldly words formed themselves in his brain:

"You have lied to us. We reached the planet you described. There is no radium. It is only an emptiness of centers of energy of the type you call matter, useless gases. Therefore we have decided to leave you here, within the Ring of Saturn, upon a large mass among the circling dust and rubble which makes up the Ring. We will find your planet by voyaging toward your sun."

**T**HAT was all. Two of the globes dipped low over the dais. There was a flickering of the golden garments of energy they wore, and the bright mesh which held him fast disappeared. He rose to his feet. Obediently he followed one of the globes to a port in the vast curving wall of the alien space ship. It slid open, revealing an expanse of rugged rock which faded away into blackness a short dis-

tance from the glowing vessel.

To the Antareans, creatures of pure energy, the emptiness of space had no terrors save for the drain upon them of radiated energy. But if Warren had not been wearing his space suit he would have died, exploding like a distended balloon from internal pressure, to say nothing of the lack of air.

Weakly a thought from the Antarean globes above him impressed itself upon his brain:

"We have hurled your space ship into Saturn. It is deep under the gaseous surface now, where you cannot conceivably find it. You cannot escape. You must wait for us."

He leaped out onto the naked mass of rock. The port slithered back into place. Silently a purple beam thrust out from the vast globe which loomed above him. He could feel the rock under him tremble. Then the globe was gone and he was alone.

How long he remained like that, a hopeless dark huddle on the sterile bareness of rock, he never knew. At intervals he slept, ate, and drank. The darkness was absolute.

It was not until it became suddenly difficult for him to breathe that he came to a real awareness of his situation. A thrill of pure terror shook him when he realized that one of the two cylinders which contained his store of air was empty. The one that remained would last about three days longer. And then? Warren had once seen a man who died for lack of air in space. It had not been a pretty sight.

Feverishly he sought for a way out. For hours, while a trembling nervousness shook his body, he considered every loophole of escape. One by one he discarded them as impossible. Suddenly a thought came to him.

In the space suit, his specific gravity was almost the same as that of the *Comet*. The metal hull of the latter had inevitably been magnetized, partially at least, by the electrical rays used upon it by the Antareans. Warren knew that Saturn had no magnetism, but that fine particles of solids were scattered in suspension all through the swirling gases of the

[Turn to Page 68]

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# *The Magician-Detective Makes His Bow*



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planet, among them particles of iron. Inevitably then, the *Comet* would leave behind her a magnetized trail wherever she went. And among the things in the belt around the space suit's middle was a small compass!

That meant he could follow the trail. And then he realized that in addition to that the planet's rotation would tend to throw him in a line, together with the *Comet*, around the equator. If he could only once get to the planet—

His heart constricted at the thought. He knew the inner edge of the Ring of Saturn was about six thousand miles from Saturn's surface. He might even be able to leap so short a distance! The rock was only a small mass, and the great gravitational pull of the planet itself would help him get away. If he crashed into anything on the way, or was too far from the surface—well, he would smash to a smear or be burned to a crisp by friction, and that would end it.

**H**E set his teeth. Blindly he walked straight ahead, until he came to a point where his weight grew suddenly lighter. He had passed the shoulder of the mass of rock, and the pull of Saturn, instead of holding him more firmly to the rock, was now trying to pull him away from it.

He drew a great breath and leaped upward.

Blackness, absolute and blinding. He hung in space. Now that the rock had disappeared in the black murk made by the countless particles of fine matter which composed the Ring of Saturn, he had nothing by which to judge his progress. Time passed on leaden feet. He could feel the space suit grow slowly warmer, the result of friction against the stuff of the Ring.

Suddenly it was behind him. He was in blackness still, but now it was blackness spattered with pin points of flame that were stars, the intolerably flaming ball of the sun at one side, ahead of him a vast gray mass which seemed to swallow the space around it, growing vaster and vaster with each passing second. It was Saturn.

Nearer it came. Faster and faster

he plunged. It became terrible in its vastness, blotting out the sky and the sun. Closer, still closer, until gray murk was about him. He had reached Saturn, was hurtling down into the gaseous, swirling mass.

Rapidly, as he felt himself beginning to slow up with the increasing pressure of the gas opposing him, it became warmer. Slowly, terribly, heat began to creep in on him. His flesh was almost burnt where it touched the hot metal of the space suit. The air he gulped into his nostrils might have come from a furnace. He fought for each breath, and when it entered his lungs it was agony!

But his mad plunge ended at last, and the swirling gases of Saturn rapidly conducted off the excess heat until he was comfortable again, though his skin felt raw and tender. For a little while he remained still, gulping in deep breaths of air.

Then he shook his head, turned the light of a tiny, battery-operated bulb on the compass, and set grimly to work.

Made thick by great pressure, the gas had almost the texture of liquid. He could paddle through it with the same ease as he could swim through water. But until he touched the magnetic trail, his swimming had to be at random.

With the ferocity of despair he struck to his task, plowing through the thick gas, a world of black mist in which the only light came from the tiny bulb. Hours passed, hours during which the dull ache of fatigue piled up in his muscles until they became numb, hours during which his eyes, fixed intently on the compass, ached and smarted like raw flesh stung by needles of pain.

Suddenly he stopped, the beat of his heart thunderous in his own ears, his breath coming thickly. Almost imperceptibly the tiny black needle of the compass had moved. He turned back, eyes intent. Again it moved. He had found the magnetic trail of the lost space ship!

He disdained weariness after that, disdained rest and sleep. He was an automaton, arms and legs working like

machinery, pain and fatigue buried beneath a numbness which could not keep his muscles from moving. On and on, following the fluctuating needle of the compass, the fluctuations getting stronger and stronger. Hour after hour. Still he moved, a purposeful black mote plowing through blackness.

**A** SUDDEN crash. A stunning blow which vibrated through the metal of the space suit. He could not realize at first that he had reached his goal at last, that he had found the *Comet*.

Slowly the thought penetrated. Slowly he began to creep around the ship until he reached the outer door of the air lock. He fumbled and fumbled before he could open it. It seemed hours before he was in the navigating chamber, before he was rid of the space suit. It was done at last.

With a great sigh he stretched out on the floor and went blissfully to sleep.

Whether it was hours or days later that he woke, he could not tell. He felt like a man reborn. Shed was the fear of the Antareans, shed the numb stupor in which weariness had held him, gone the dullness that had weighed down his brain until he could scarcely think one clear thought.

He put away the space suit, restocked it with air and food, then went back into the navigating chamber and sat down in the chair before the control panel and the visual plate, which now showed only a black murk, the stuff of Saturn.

He must get back to Earth. Even unguided the Antareans might find the planet. If men were forewarned they might not be destroyed. Once established, and with an ample supply of energy, the energy things would soon rule the world.

He bent over the control board, his fingers swift and sure. A blasting explosion and the *Comet* surged upward. Again and again, until finally the ship shot into clearness and the sky showed black, spangled with the bright flames of stars. He took his bearings, checked and rechecked every figure.

Then another flare of energy rocked the ship of space as she veered and teetered, jockeying for direction. Then, trailing long plumes of incandescence behind her, the *Comet* flashed away from Saturn for the second time and headed once more for her home planet.

On through black emptiness she blasted, while time and distance melted behind. She hurtled past gigantic Jupiter and on toward Mars. Warren's eyes ached from constant watchfulness on the subdued light of the visual plate.

He reached Mars, looped past the newly colonized planet, and slanted down on the course followed by the Earth-Mars liners. Only a scant week more and they would hiss through the atmosphere of Earth again.

And it was then that the tiny point of light showed suddenly on the visual plate. Warren stared at it, face whitening. It was no star, no comet. It was the Antareans' globe again! *On their way to Earth!*

A fierce hot hate consumed him then, a hate such as he had not known even while they tortured him. His pulsing blood hammered in his veins. His eyes were like the eyes of a wounded, snarling animal. His teeth showed.

It was *his* Earth they were going to destroy and render sterile of life! Little inconsequential things popped up in his mind again—the fat chortling laughter of his sister's youngest boy, the hissing white curl of a wave racing through green water, the smiling warm lips of a girl he had once kissed.

If the Antareans reached the Earth these things might never be again, soft lips for kissing, white waves through which to dive into clean greenness, the laughter of children. . . . The planet would become a bizarre place where energy floated alive in an inhuman, destroying wave. It would feast on the world until the planet was barren of radium, and then leave it behind, sterile and naked of all life.

**T**HE wave of anger passed, gave place to a cold insistent ferocity in which his mind was crystal clear. He pondered plan after plan of attack, dis-

carding one after another. Patiently he probed the nature of the aliens, sought for some weapon to which they were not immune.

And at last he found it. It was absurdly simple. The glowing golden mantle of energy which surrounded the living energy centers of the Antareans was their buffer. With it they analyzed and filtered out alien forms of energy, absorbing only those that were not harmful, neutralizing others. Matter, all kinds of matter, were forms of energy to them. If he could shoot at them matter and energy of sufficient variety to all of which they could not adjust at the same time, it would blast past the halo and kill.

Methodically he got ready. He rigged up electrical apparatus which would add mixtures of conglomerate matter to the rocket blasts of the *Comet*. He did the same with his blast guns. Then, tight-lipped, hard-eyed, dressed once more in the space suit, blast guns ready, he returned to the controls. The *Comet* shook and shivered with the recurrent rocket blasts as he flashed through space toward the vast, glowing globe of the aliens.

When he was sure that his aim for the Antarean space ship was good, he cut off acceleration. The globes might detect the flare of his rocket exhausts if he persisted in using them at too close a range. But his momentum hurled him on at terrific speed. The globe of the aliens grew larger and larger on the visual plate, looming directly ahead.

He was braced for the crash, but the sudden impact hurled him from the chair, smashed him agonizingly against one wall. He could feel bone crack, feel the searing stab of pain in a rib and one leg. The next instant he hurtled to the wall again. Blackness plucked at his senses. His teeth set, he fought stubbornly to retain consciousness, crawled agonizingly back toward the controls. He could tell by the sudden clinking as loose pieces of metal flew to the walls and clung there, that an alien energy ray had brought him to a halt. He had crashed through into the vessel of the energy things—and now they were

holding him there, a prisoner!

The thick face-plate of the space suit had been smashed to splinters and glass dust, had raked his face into a bleeding smear. Agony pierced through his rib and leg with each movement. But he went on.

He reached the control board, pulled himself into the chair in sweating agony. Just as he reached it a yellow spot showed on the wall and began to grow. The Antareans were attacking in person!

In the visual plate he could see the *Comet* within the vast alien space ship, yellow globes forming a fuzz over her as the aliens burrowed in. At one side of the Antarean vessel was a gaping hole where the *Comet* had crashed through. The great girders which held the central mysterious mechanism in place were snapped and broken in places, and the nest of machinery sagged.

He set his teeth, pressed buttons and moved switches. Blasts of energy and miscellaneous scrap matter spewed from the rocket exhausts. They swept into the aliens. The golden halos flared through the spectrum in the effort to protect the vital energy centers within. Some turned black, and a moment later disappeared in a blinding white flash of energy.

**H**IS body was aflame with a thousand points of pain as the *Comet* rocked and reared and plunged. Dazedly, determinedly, he fingered the controls again.

More of the aliens died, but their death flares were blasted out of sight by the sudden release of energy which followed when one of the exhausts spewed energy and junk matter directly into the sagging central mechanism of the alien ship. The visual plate flared white, blinded him. When he looked again, it was black.

The aliens themselves were still to be reckoned with. Most of them had died. But five had almost penetrated the *Comet*, and two others were just starting through. The first were already sending out waves of energy, heat waves that shot through the metal of the space suit and concen-

trated viciously on his flesh. It was as if living flame rioted through him. His eyeballs ached in the bright beams.

Dimly he could still make them out. With hands that seemed heavy as platinum he pulled out one of his blast guns. It held three shots. A dazzling flare of energy leaped out at the wall where the last two globes were struggling through. The adjustments of the halos in going through the wall handicapped them, and this new burden of variegated energy was too much.

They flared, left behind two round black spots. Again and yet again came the flares. Two of the globes within the chamber were caught, flared into death. He hurled the heavy blast gun toward the three remaining, followed it up with three more searing shots from his remaining blast gun. Hazily he could see two more blasts of dying light. But one golden globe, dimmed, ravaged, was still floating on. Slowly, haltingly, it was coming for him, emitting intermittent beams of heat at him.

He flung things at it: a screw driver among the tools; a heavy space sextant; even rolled-up charts. The dimmed yellow halo around the faintly pulsing purple center caught them, deflected them all. And it came on.

There was nothing left to throw. He tottered to his unhurt foot, hands spread forward. He hopped, once, twice. The globe was nearer, nearer, inches away. Its heat beam blinded him, flicked his raw optic nerves like knives. He closed his eyes and leaped forward.

He was in it, within the halo. Heat wrenched his muscles, sent agony

thrilling through his nerves. The numb paralysis which had come upon him before when within the halos of the Antareans was not effective now—the Antarean was almost as weakened as himself. Blindly, mechanically, instinctively, his clawed hands threshed feebly within the hot agony of the halo. His muscles jerked like dead things through which electricity sent shocks of life.

Came a sudden shock worse than all the rest, agony unspeakable. Blackness engulfed him.

He came to, prone on the floor. Dully he realized that in his mechanical pawing he must have touched the pulsing center of the Antarean and killed him.

Slowly, an inch at a time, he crept across the floor. He reached the controls, pulled himself into the seat. Weakly his fingers fumbled with the buttons and levers and switches.

The *Comet* crashed through the dead bubble which had been the space ship from Antares. The course of the Earthly ship wobbled a bit, but straightened at last into a direct course for its home planet.

Days passed.

The sun lit the Earth's flank into a bright, curling sliver of silver on the visual plate. Slowly it grew larger, nearer, a serene world filled with light and warmth. Soon he would be there.

Warren looked back, but could see nothing. The alien globe which had glowed so brightly and flashed so swiftly through space was still now and shrouded in somber black. Within the vast and empty maw of space it was hidden from human eyes. No man would ever see it again.

## QUESTION ANSWER

Which are the  
only cough drops  
containing  
Vitamin A?  
(CAROTENE)

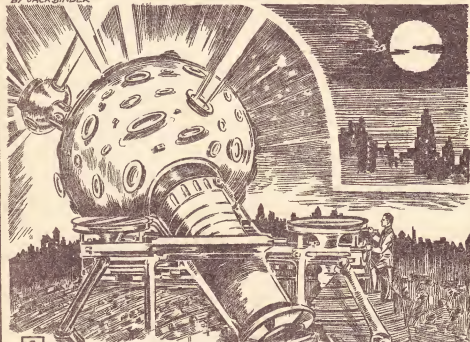




# IF

# THE STARS VANISHED!

BY JACK BINDER




**A** BLACK NEBULA... SUCH AS THE FAMOUS COALSACK OF THE SOUTHERN CROSS...MIGHT SOME DAY DRIFT OUT OF SPACE, SURROUNDING THE SOLAR SYSTEM. DENSE ENOUGH TO CUT OFF WEAK LIGHT BEAMS, ONLY THE SUN AND MOON WOULD BE ABLE TO SHINE THROUGH TO EARTH. HUMANITY MISSES THE STARS, AND THEIR FAMILIAR CONSTELLATIONS. PLANETARIUMS DO A LANDSLIDE BUSINESS!



**A**LL MEASUREMENTS OF LATITUDE AND LONGITUDE BASED ON THE "FIXED" STARS, BECOME IMPOSSIBLE. MANY SHIPS AT SEA TRAVEL IN CIRCLES OR ARE LOST DURING THE STARLESS NIGHTS.

Next Month: IF MODERN SCIENTIFIC POWERS



**T**HOUGH MOVING THROUGH THE GREAT CLOUD OF COSMIC DUST, EARTH IS SHROUDED FOR YEARS. CHILDREN GROWING UP ARE SKEPTICAL WHEN MOTION PICTURES TELL THEM OF THE THOUSANDS OF LIGHTS THAT USED TO HANG IN THE SKY!

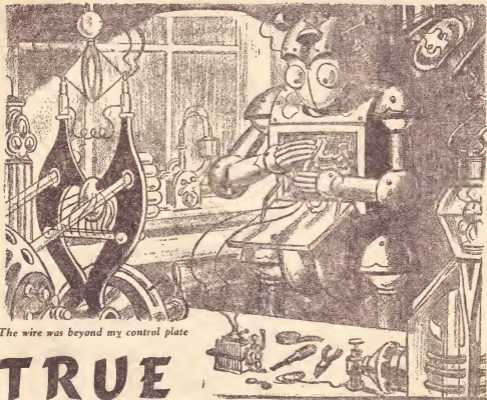
**T**HE CLOUD ENVELOPING EARTH ALSO DIMINISHES THE INTENSITY OF SUNLIGHT, AVERAGE TEMPERATURES GO DOWN, THE SEVEREST WINTERS ON RECORD RAVAGE AMERICA AND EUROPE!



**S**UDDENLY, ONE NIGHT, THE STARS BLINK INTO BEING AGAIN. THE BLACK NEBULA HAS PASSED. IT IS A BLESSED SIGHT TO HUMANITY, FOR SPACE HAS LOOKED EMPTY AND BLACK FOR A DECADE. THE STARS, INSIGNIFICANT PINPOINTS OF LIGHT THOUGH THEY ARE, PROVE AN OLD FRIEND TO MANKIND!

WERE UNLEASHED FOR USE IN WAR

BF-A1, Robot of the 27th Series, Speaks His Mind—  
and Bares His Heart!



*The wire was beyond my control plate*

# TRUE CONFESSION\*

By F. ORLIN TREMAINE

*Author of "The Throwback," etc.*

**I** WAS aware of light. That came first. It wasn't a steady awareness, but sporadic. Perhaps two wires crossed and the reactionary current brought consciousness. That is my theory but it is not certain. In time, that consciousness of light became continuous. My theory is that the two wires had fused into permanent contact. Certain it is that my required energy increased slightly at a point approximating the coming of conscious recording of thought.

It is easy now, in view of my classified knowledge, to point out that my

\*As written on a blackboard before a crowded court.

experience in attaining thought was like that of a fleshman regaining consciousness after a severe shock which has blanked his senses. Then I simply groped for a nebulous something which in a way was being revealed through that light.

My reflexes had reacted to light for two years before consciousness crept in. They were trained to it. The grooves were worn. How simple then for a recording system to act naturally once that recording medium came into being.

My writing is steady and clear. You will notice that, of course. Because, mechanically, I was made to perform

every act with the utmost accuracy.

*BF-A1.* Even the letters of my designation indicate that I am the first model of a new series of mechanical men—the 27th Series to be exact.

Great things were demanded of me, and in reading the notes of my early performances I learn that my reactions were described as follows:

More than anticipated. He moved in response to the spoken word as if he understood. The electrical wire ganglion of Professor Ernstburk has proved to be a brain as truly as if it functioned independently. Your committee is at last convinced that *BF-A1* is the apex of mechanical achievement. He answers questions logically, in writing, making use of all information given in previous verbal conversation.

The accuracy of his logic is such that once when your chairman asked a question of Professor Ernstburk the mechanical man wrote the correct conclusion immediately, whereas it required the professor more than two minutes to attain it.

The foregoing is respectfully submitted by Dr. Rednib Hubron, October 1, 1953.

There was one thing definitely missing from my equipment. I could not speak. And that lack has bothered me. If I wish to express my thoughts, they must be expressed in writing, and writing is dangerous in many cases.

But I digress. I continued to work in the laboratory with Professor Ernstburk for three years, correcting his errors in logic, checking his progress in the development of his ganglion. He of course did not know I had attained consciousness, although once or twice I feared he suspected it.

**I** AM not supposed to tire. But after the coming of conscious thought I did. That raised a new problem. If I deliberately shut off my batteries, I remained unconscious until the professor chose to turn them on again.

So I decided to chance my newfound conscious life in an operation on myself. Usually the professor let me walk home with him, as there were many things I was able to do about the house. I performed any duty which did not bring me into contact with water. Even though my rubberoid skin protected me, the professor agreed that I should avoid risk of damage. But I made the beds for him and for

his daughter, Gay, and I enjoyed the fact that she used to confide in me and ask my advice concerning love affairs and humdrum business matters. At least she could be certain of logic and accuracy in my answers.

If she learned to accept my presence in her room as a matter of ordinary fact, that is natural. And I gained a certain stimulation from the camaraderie which came with her asking me about the color of her stockings, and whether some little bit of silk she wore was becoming. I would write my answers evenly, on the pad on her vanity dresser, and examine her apparel in answer to her requests, until it began to occur to me in some manner connected with logic why it was that fleshmen are attracted to their women.

That raised another problem in my brain. I had concerned myself for some time with the reasons for ambition, and, deciding them to be sound, had calculated as to the wisdom of seeking a mechanical oligarchy.

I had something to offer to men which they could not find among their own breed—an administration of government which would be free of emotional influences. It was a point which required careful thought, though it appeared quite sound at the time.

My intimacy of thought with Gay Ernstburk taught me in due course that she was capable of keeping a confidence, and I determined to risk her guessing my secret. One night I wrote on my pad the following question:

"Would it not be advisable for a mechanical man of the 27th series to be assigned to the White House to assure pure logic on decisions in International affairs?"

Gay read my question slowly, then turned and gazed up into my eyes for a long minute.

"A-1," she said softly, "I don't know what it is, but you make me feel embarrassed in your presence. I—I almost want to run and hide as if you were a fleshman."

"That is not logic," I wrote, "It is emotion, such as *caused* my first question. My first question is based on logic."

"Yes, A-1," she answered, "but I believe that you are thinking clear of suggestion. And if you are, that makes you a strange man in my room.

**H**ER remark gave me my first inkling of what men mean by the word "fear." A quivering motion ran through the wires of my system and my eyes flickered as the wavering energy passed their bulbs.

She noticed the flicker. A little frown puckered her forehead for a moment, then she smiled.

"All right then, A-1. On second thought I believe that you have earned the right to a certain unemotional intimacy, since you have advised me for months on personal matters. But let's be frank. I believe you have attained conscious thought. Am I right?"

I was cornered, because in all the preparation of my electrical ganglion there was no basis for evasion. In due course I might develop such a talent through logic, but I had not as yet. My steel frame-work cannot smile, or frown, nor is my rubberoid skin attached to my ganglion wires, but again I knew what it was that made men frown.

"If I am capable of understanding the identity of conscious thought," I wrote, "it is possible you may be right. But let it remain our secret until I am certain."

Gay leaned back against the dresser and put one of her little hands on each of my arms. She looked into my eyes again for a long time.

"I'll keep it a secret on one condition, A-1," she said. "Promise that you will tell me as soon as you are sure, that you will always be honest with me, and that you will discuss all angles of the matter with me just as I have discussed my personal matters with you."

"I will gladly do that," I wrote, "so long as you let me delve into this awareness which is fascinating in its revelation."

She looked at me again, and said: "You know A-1, if you were a fleshman, I think I'd like to marry you. But since you aren't, we must always be close friends. I know your logic

will take care of father as long as he lives."

"As long as he lives," I wrote, "I will help to the full extent of my electrical ability."

"Goodnight, A-1."

I went out, but her words had planted a thought in my brain which she never suspected. "*As long as he lives,*" I had promised, but I had not promised to let him live long. And for two days I delved through a maze of logic to an unalterable conclusion. It was wise for me to help Professor Ernstburk to live a long time, because there was no certainty as to my associations after his life ended, and the maintenance of his life would assure the cooperation of Gay in any reasonable undertaking I desired to attempt.

**W**EEKS passed before an opportunity came for me to undertake the operation I had planned. Every night the professor disconnected my batteries. In the morning when he connected them again I was rested and should have been content.

But suppose something happened to him. Suppose his life ended in the night, and no one bothered to reconnect my batteries. That would mean my life ended with his before I had begun to explore the possibilities of awareness! The thought did not match logic, for it indicated a loss of usefulness.

The night came, however, when Professor Ernstburk and I had been checking all day on a series of mathematical calculations whose purpose was so to order a naval battle through mechanical logic, that an unmanned fleet might be sent to sea with the practical certainty that it would engage an enemy, defeat it, and return to port with little serious damage.

The plan was to install series BF-A brains on the bridge-mechanism of each ship, and a master BF-B brain with short wave mental imagery in the triple protected heart of the Flagship. The BF-B could, by picking up the logic observations of all the BF-A brains, coordinate their combined logic into an unbeatable conclusion and retransmit the orders which would

confound and sink the enemy.

At ten o'clock the professor prepared to give up for the night. It was storming hard, and he remarked as I helped him don his coat:

"I think it will be safer for you to remain in the lab tonight, A-1. We're too far advanced to risk anything happening to you that might delay us even for a day. So suppose you get into the locker."

That was the second time in my conscious life that the bulbs behind my eye-lenses flickered. But the professor was glancing out the window and didn't notice.

I thought fast.

Slowly I turned and walked, not to the locker, but back to the table. He followed, puzzled. I leaned over the pad and wrote slowly.

"My logical processes are working clear. I have advanced to the twenty-seventh step of action. If I stop now we must begin again in the morning, whereas if I continue I should be able to have written out the complete thought-process steps through forty-seven phases. This should either point the conclusion or leave us within a few steps of it. You can renew my batteries tomorrow, let me work tonight."

Professor Ernstburk read my note carefully twice. He looked undecided for a moment. But I knew how much this problem meant to him, and waited. He looked closely into my eye-lenses, then carefully tested my current. He shrugged and patted my arm.

"I hesitate to leave you, A-1. You're almost like a son to me, and if anything happened to you I'd feel mighty bad. But you're a good man, and that's good logic, so I'll take a chance. Take care of yourself."

And the professor slammed the door behind him as he went out.

**I** HADN'T deceived him. What I had said was true. And I proceeded conscientiously with my calculations. By four in the morning I had followed through to the ultimate thought-variant; fifty-three steps. By five I had checked back over the logic and found it right. There remained

only the problem of adjusting our master BF-B ganglion to sympathetic harmony with the BF-A brains, and checking its coordinating logic to assure success.

I locked the data carefully away in the concrete space below the safe, since we did not consider the safe secure from alien avarice. And now at last I turned to my planned operation.

The rubberoid skin of my hands seemed whole but I renewed it with a thin film for safety. Then I procured the timing device I had segregated weeks before and laid it on the table before me.

Since it was necessary to perform the operation without breaking the current through my system, I attached a bridge-wire above and below the one where I planned to insert the automatic switch.

Here I had considerable advantage over fleshmen. There was no necessity for an incision, or bloodshed. I simply opened a steel door in my torso and everything lay clear before my eyes. It was a little difficult, leaning forward enough to see clearly, but I managed.

The real shock came when I attached the bridge, and "felt" a twinge, which logic told me was akin to fleshman's pain. It numbed my awareness for just a moment, and that made me cautious, but I went on. There came another distinct twinge of feeling, and numbing consciousness when I snipped through the wire itself, but it passed in a second or two and I proceeded.

The wire I had to reconnect was behind the control plate on the front of my torso just above the steel door. Any electrician can describe the operation to you. I inserted the timer, and rewound the insulation carefully. A bit of solder made the tiny gadget adhere to the inside of my steel casing. Then I closed the door carefully and entered my locker.

For just a moment I hesitated, then swung the door shut, and pressed the button which disconnected the switch and shut off my battery-power. If the professor wondered about it in the morning he would think the matter

through and realize that through observation it had become a reflex. Or would he? The danger struck me just too late, for the pressure had been applied, and I lost my awareness.

**T**HREE weeks passed in fairly normal progress. I kept my word to Gay, even to informing her of my operation. And she kept her word to me. We became friends where previously I had been like a talking doll. Yet, please try to understand that she had seen me constructed from bits of wire and glassite, and pieces of paper-thin steel. She had seen a rubberoid sheet applied to my frame, and had seen electrical batteries inserted in my torso to give me animation. To her I was a machine come to consciousness—and to me, she was in the same world—but of a different nature. It was a friendship such as has never before occurred in this world and such as, after today, may never occur again.

Then one rainy afternoon the professor stopped work at three o'clock in the afternoon. Please note that hour. It is important. He left to attend a meeting of scientific importance. I went into my locker and he turned off my batteries.

Our work on coordination of the brains was completed except for some very minor details which could have been worked out by novices, had that not involved the revelation of major secrets.

Invitations had been issued to the ordnance department of the navy for the final demonstration of our achievement, and the Secretary of the Navy himself was scheduled to attend the demonstration two days later.

I needed rest, and was getting it.

At eleven o'clock that night—note that exactly eight hours had elapsed—my timer renewed my battery power. My thought processes resumed at exactly the point where a thought had been interrupted when the professor disconnected my batteries. This occurred only on the rare occasions when a thought was broken in passage. Ordinarily I had to resume logic from a simple premise upon "awakening."

Please, gentlemen, note quickly, the

expressions of surprise on the faces of the two people whom I know as my friends.

These two people are learning facts they could not possibly have guessed. I have perhaps embarrassed one of them, but they both know that it is only for the benefit of both. And both can testify that I speak only clear logic.

Excuse the digression. Logic bade me point out to you an evidence which your eyes can see. As my writing appears upon this board before you, it appears to them. It could not be otherwise, and since I cannot speak, it has been impossible for me to communicate with them.

In any event, I stirred in my locker. I was rested, and I debated whether to proceed to complete the details on the coordination or wait until the professor came in the morning. I decided to wait lest I arouse suspicion in his mind. But I stood, continuing my interrupted thought for perhaps two hours, silently, within my locker.

Bear in mind that I am not flesh, that I am not subject to cramped muscles, or other weaknesses of flesh. My frame rests when it is without power. It works when the current is turned on.

**A**T about one o'clock, the door to the lab opened. I heard it with my mechanical ears as clearly as you would hear it with yours. Footsteps moved across the floor and I started to press the button which disconnects my power, but stopped! For it was not the footsteps of the professor returning to work late, but stealthy, muffled steps.

Silently, then, I swung the door of my locker wide, and watched with one arm ready to shield my eyes should they turn and see the lights behind my lenses.

Two men bent before the safe, speaking gutturals. It was not English they spoke, gentlemen. English is the only tongue my mechanism can interpret, and it was not that. I do not know what language it was.

I stood still while they fussed about the safe. I made no move when they

picked the lock and swung the door wide. I stood silent while they sorted through papers whose value threatened no one.

But when one exclaimed and started to pry loose the block of concrete beneath the safe, I moved swiftly.

You will note, gentlemen, that on the bottom of my steel feet are thick pads of felt. This is necessary if I am to move quietly about the professor's house. That felt served its purpose that night.

I moved quickly. Even as the man lifted the block of concrete, I seized the two heads, one neck in each hand. I twisted. There was the crunch of bone. I saw no blood, but after a minute both bodies hung inert. I dropped them.

Carefully I restored the block of concrete to its place. Carefully I avoided touching any of the scattered documents from the safe. Carefully I avoided closing the safe door, or doing any other thing which would tend to block the efforts of the police to identify these burglars for what they were.

Softly, quietly, with the feeling of having done a job well, I returned to my locker, closed the door and pressed the button which disconnects my batteries.

At nine-thirty in the morning, awareness returned. I stood for a moment listening. The police were in the laboratory. I heard their voices. Heard the remarks of the fingerprint men. Heard enough to tell me that I had best not throw any inexplicable circumstances into the investigation. I knew that if a mechanical man suddenly walked out into the room it would cause a panic. So I once more disconnected my power, and rested.

That was three days ago, gentlemen. I have kept quiet. The police locked the laboratory and departed. I did not want to break their lock, but Professor Ernsburk did not return and I began to fear he was ill.

As I have told you, logic had brought the conclusion that it was to my advantage that he live as long as possible. Besides I had promised Gay I would help him as long as he lived.

Note how, despite myself, I make a

distinction between those two statements. That is how completely logic rules my thoughts.

**T**HIS morning when I awakened, I broke the lock on the front door. I took in the papers which the professor always had delivered to the laboratory—and from the front page of the paper this disgraceful story stared at me.

*"Professor Ernstbuck rushed to trial at the request of Federal authorities, on a charge of murder in the first degree!"*

The police had found the "weapon," a heavy iron bar, which had broken the necks of two distinguished foreign scientists. According to the story, in a jealous rage over remarks of the two visitors, Professor Ernstbuck had broken both their necks with this bar. His fingerprints were on it clearly and it would be introduced in evidence.

And you know, gentlemen, I never doubted the brilliance of the authorities until now. The only weakness I credited them with was emotionalism.

But today my contempt for your law-enforcing authorities is deep and sincere. That bar you hold in evidence is one which was used to brace drawings tight against the table. Of course the professor's fingerprints were on it!

It never occurred to you that the scattered papers meant burglary, because the safe was not damaged. Yet no man worthy of the name scientist but could open a simple safe if he set his mind to it. My logic tells me that, and I am only a bit of electric wire and coil and steel.

Go, and you will find tiny concrete chips to prove those men lifted the block. Go, and you will find the greatest invention of three centuries hidden beneath that safe.

It is still—but it is there only because those men are dead.

You should fear me, because I am steel and could break every fleshy body in the room. Yet if you had logic you would not fear me because water from a hose would wreck my mechanism almost beyond repair.

Try me, if you *can*, try a bit of ma-



chinery for murder. But set free the genius who built me, and created the means of impregnable defence at sea.

Once I suggested to Gay Ernstburk that one of my type be assigned to the White House. Today, I suggest that one of my type be assigned to your police for his pure logic.

Examine me. Find which two wires fused to bring me conscious thought—then create another if I must die, for logic says the type should live. And Professor Ernstburk, my friend and creator, is the only living man who can accomplish a reproduction.

That is all, gentlemen. You have my confession. Even your weak logic should be able to confirm it. Open the door in my torso and you will find your first proof, the timer which enabled me to save the secret of the BF-B master brain, and its coordinating communication system with the BF-A brains which it commands.

\* \* \*

*Report of the Chief of Detectives:*

Upon examination, the timing device was found exactly as described in the purported confession of the Robot BF-A-1. Upon further examination it was determined that a block of concrete had been pried loose from the floor below the safe in the laboratory of Professor Ernstburk. In the presence of a representative of the Navy Department the plans and models described in the purported confession were removed and placed in the custody of the department.

Upon further examination it was determined that the vertebrae of both dead scientists had been crushed from two sides, thus confirming the accuracy of the statement.

Fingerprints upon the safe door, which had been obliterated by rubbing, were restored by the new mercury process. They included the prints of the two dead scientists.

Statements of both Professor Ernstburk and his daughter Gay, add additional details, confirm the accuracy of the purported confession.

\* \* \*

*Motion by the District Attorney:*

The People of the State of New York petition the court for dismissal

of the charges made in the indictment, charging Edward Ernstburk with murder in the first degree.

\* \* \*

*Remarks by Judge Rush:*

In view of the lax observations of the police charged with the investigation of the case, and of the obvious justification of the action wherein these two intruders met death when they were caught in your laboratory machinery, we can only offer the sincere apologies of this court for the humiliation you have suffered. Professor Ernstburk. You and your daughter are hereby released from custody. Case dismissed.

\* \* \*

*Remarks by BF-A-1:*

It is with considerable surprise that I find my life not forfeit. As surely as I spoke, I expected complete dissection. It was not necessary, however.

My friendship with Gay is more intimate than ever before. She says I have proved it. I shall try. She tells me that I have only about four years to live, as the fine wires of my ganglion will have exhausted themselves in that time, but I am content.

I have no further thoughts toward Washington, or the police, except that I would like to see a BF-A type mechanical man assigned to each.

Life holds only a passive interest for me as an observer. In four more years I shall have explored every available channel of learning open to me. I still have two friends. But as my thoughts progress I realize that life without emotion is meaningless. I have come close to emotion through friendship. That makes it worthwhile.

I made no protest when Gay told me the professor had removed my timer. My conscious hours now are those when someone wants my company. There are no lonely periods. More and more I live at the house. My trips to the laboratory grow shorter. And that is well, for it is only thus that I may last four years, and live to see Gay happily married to a fleshman. I am, I think entitled to a bit of sentiment, if emotion is denied me.

BF-A-1.



# Science Questions and Answers



## COSMIC COLLISIONS

Comets have appeared in the sky for the last thousand years, according to astronomical records. In all this time, has a comet ever hit the Earth?—F. W., New Haven, Conn.

The Comet of 1832 was expected to collide with the Earth. Computations showed that the comet would reach perihelion on November 26, 1832, and that it would cross the Earth's orbit with only 18,500 miles to spare. As soon as these calculations were arrived at, efforts were made to suppress them from the public. For it was feared that a panic, similar to the one of 1773, might result.

The point of the whole matter was, however, that the Earth was not in that part of its orbit when the comet crossed. The comet passed this grade crossing on October 29 and the Earth arrived at the same spot about 32 days later. That is, the Earth was about 52,000,000 miles away and the nearest the comet ever came to us was 81,000,000 miles.

In 1910 Halley's Comet actually did intercept the path of Earth! We passed through its tail—but with no ill effects!—Ed.

## LIFE AFTER DEATH

Is the head of a human being conscious after it has been severed instantaneously from its body? The reason I am asking this question is to settle an argument with a friend regarding the humanness of execution by beheading.—M. S., Pittsburgh, Pa.

All conscious processes cease practically simultaneously with the severance of the head from the body, such as by means of the guillotine, according to all available biologic and medical evidence. The brain of man is so dependent on oxygen in the arterial blood and the continued removal of carbon dioxide and other waste by the capillary circulation in the brain that a few seconds of complete inhibition of the heart produces unconsciousness. Circulation of blood in the brain stops at once with the head's severance.

Normally, a blow directed toward any part of the head, even though not severe enough to break any bones of the skull or jaw, is known to produce unconsciousness of various duration, even without much disturbance of the circulation of the brain, although, according to *The Journal of the American Medical Association*, the most recent investigation of the problem on dogs indicates that the momentary stoppage or slowing up of the circulation in the brain may actually be the cause of this type of unconsciousness.

In beheading a man, the jar to the skull and its content from the ax or guillotine in crushing or severing the atlas or one of the cervical vertebrae is in all probability as severe as any knockout blow.

Any movements of the tongue, jaw, facial muscles, eyelids or pupils that may occur after beheading are in all probability due to stimulation of the lower reflex centers in the brain by the state of suffocation and in no wise indicate conscious processes. So, to settle your argument, we can say definitely that

execution in this manner is extremely humane.—Ed.

## SUPER RAYS

I've seen at least a dozen stories in **THRILLING WONDER STORIES** which speak blithely of cosmic rays. There may even be such a story in this issue, for all I know. What are these mysterious cosmic rays? Have a heart, editor, and give.—D. L. O., Wilmington, Delaware.

Cosmic rays are the most important radiation in the Universe. The cosmic rays carry the most powerful pack of energy known to science. With the utmost ease, they can penetrate through thirty feet of solid lead or several hundred feet of water. Ordinary matter scarcely stops them at all. Atoms are so small that many billions of them can dance on the point of a needle, but cosmic rays are smaller still! The longest have wavelengths less than one-thousandth the diameter of an atom, while the shortest are even smaller than the electrons, the stuff of which atoms are made.

It is this extreme smallness that gives the cosmic rays their tremendous energy and penetrating power, an energy so great that it is believed it would take a 60 million volt X-ray to produce some of its mildest forms. The cosmic rays, at the height of their power, are believed to carry an electric wallop which may exceed 100 billion volts.

Human life, as all life on this planet, is subjected to the constant bombardment of these rays, with effects on human existence as profound as they are unknown. Science fiction writers have often conjectured, in their tales, as to the various effects of the cosmic rays on man. Some scientists have suggested that the cosmic rays may be responsible in some mysterious way for starting that atomic decay within the human body which ultimately leads to the grave. Yet it is impossible for us to escape the action of the cosmic rays; we could get away from their effects only by seeking a hiding-place several hundred feet down in the bowels of the earth or at the bottom of a deep lake.—Ed.

## THE GLANDS OF POWER

What are some of the functions of the ductless glands, in the human body? Do they play a significant part in man's physical and mental make-up?—D. H., Milwaukee, Wisconsin.

And how! So powerful are the ductless glands and their extracts, it is calculated that if one two-thousandth part of an ounce of thyroxine, the secretion of the thyroid gland, were removed from the neck of Mussolini, Einstein, or President Roosevelt, it would be more than enough to reduce these men to impotent imbecility!

Yet, some of the secretions of the glands are even more potent than thyroxine; endocrinologists have discovered that the thyroid gland contains at least one active sub-

[Continued on Page 126]

**THIS** department is conducted for the benefit of readers who have pertinent queries on modern scientific facts. As space is limited, we cannot undertake to answer more than three questions for each letter. The flood of correspondence received makes it impractical, also, to promise an immediate answer in every case. However, questions of general interest will receive careful attention.

# SCIENTIFACTS

INCREDIBLE BUT TRUE

A SPECIAL FEATURE OF INTERESTING ODDITIES

By MORT WEISINGER

## MICROSCOPIC MIGHT

**M**ICROSCOPIC bacteria generate the power to run the wheels of industry!

Scientists have found a new use for bacteria. It all began with the observation that the formation of marsh gas (methane) was caused by the action of tiny anerobic (airless) bac-



teria which fermented the cellulose contained in decaying swamp vegetation.

Research workers reasoned that if bacteria could generate methane gas from swamp wastes, why not from the organic material in waste sulfide liquors, a worthless by-product of the wood pulp industry?

A method of putting the bacteria to work was easily established. And last year, in the wood pulp industry alone, the microscopic organisms generated enough methane gas to equal the amount of power supplied by 300,000 tons of coal!

## TRANS-CONTINENTAL VISION

**W**E could see across the continent—if the Earth were flat!

If the Earth were flat, a two-hundred inch reflector telescope would permit a man in San Francisco to read

a sign in New York as clearly as the New Yorker reads it from across the street.

However, the Earth curves about eight inches every mile, and it is this curvature which makes unrestricted long-distance vision impossible.

## WORDS, WORDS, WORDS!

**O**NLY one-half of one percent of our language is ordinarily used!

The English language contains one million words. 300,000 are slang and vulgar terms not included in dictionaries, and about 250,000 are obsolete and no longer used. Another 250,000 words are technical and scientific terms, used only in their special fields. Of the remaining 200,000, about 150,000 are seldom employed.

In fact, several tests have shown that the average person uses only about 2,500 words and understands an additional 2,500 which he himself never uses.

## FLAMING FAME

**W**HO discovered Halley's Comet?

Most people will tell you that Edmund Halley discovered this comet. But astronomy tells us otherwise.

While it is true that most comets are named after their discoverers—as witness Donati's Comet, named after the Italian astronomer who first sighted it—Halley's Comet, on the other hand, is so called not because Edmund Halley discovered it but because this English Astronomer Royal worked out its motion and success-

fully predicted its return. If you want your name permanently remembered by humanity, discover a comet!

## THE DAYLIGHT SAVER

**T**HERE is a bird that sees the night only two months a year!

That bird is the Arctic tern. It seems probable that no other organism in the world enjoys as many hours of daylight as does the Arctic tern, since for those birds in the northern part of the world the sun never sets during their nesting season. And, during their sojourn in the South, where they migrate, daylight also is continuous. Thus, except for the time involved in migrating, the Arctic tern has 24 hours of daylight day in day out!

## PENNY POWER

**A** SIX-DAY bike rider's muscle power is worth only 75 cents!

Pedaling a bicycle for six days appears a most gruelling test of muscle power, yet a single rider, if he were able to keep going night and day without a stop, would exert but 20 horsepower-hours of energy, equivalent to the energy which 75 cents worth of electricity would buy.

This was recently revealed when some of the racers at Madison Square Garden, New York, tested their strength on a special bicycle, built by engineers, which accurately measures the muscle power of the rider.

## FAREWELL TO INSECTS

**S**CIENCE is calling a truce in its war on insects!

For the past few decades man has waged a relentless campaign against the insect scourge. To combat the



six-legged agricultural menace, man has enlisted the use of poison sprays, X-rays, electrocution, gases, flame,

luring lights, etc. He has even resorted to the strategy of setting one species of insect against the other, in the hopes that a civil war would consume them both.

But the reckoning is coming very shortly in the future, leading entomologists tell us. Man's death blows against the insect world are slowly resulting in the elimination of insects needed by man! Bees, for example, required as pollinizers of orchards, garden plants, etc., are innocent neutral victims of the man-insect war. Birds, too, require insects for food.

So—entomologists would have us declare an armistice. Or, at least, we should set aside "insect sanctuaries" so that the beneficial six-legged tribes shall not perish from the Earth!

## OUR INCREDIBLE UNIVERSE

**T**HE dinosaur Trachodon had 2,000 teeth, and when one dropped out, another grew in its place. . . . The vingtillion is the largest number usually given a name! It consists of a



one followed by sixty-three zeros. . . . The stinger of a mosquito weighs only .000018 of a gram. . . . Jupiter, king of the Solar System, made its nearest approach to Earth in 24 years on September 27, 1939—a matter of 367,000,000 miles separating the two orbs. . . . If air was sold for twelve cents a quart, about the price of milk, it would cost each of us over \$2,000 a day to breathe. . . .

Although some 90 chemical elements have been found in or on the Earth, 11 of them make up 99½ percent of the Earth's layers. . . . In Italy, steam from the Earth is used to generate 19,000 horsepower daily. . . . Though the chemical industry now produces about 10,000 different substances for sale, scientists know definitely of an additional half million substances for

which there is no present use. . . . A super-nova discovered by Dr. Fritz Zwicky is so distant that it appears to the eye as only a faint telescopic star of magnitude 10.5, despite the fact that it is actually five hundred million times brighter than the sun. . . . The mass of the nucleus of Halley's Comet is about 30,000,000 tons. . . . A quartz crystal oscillator, developed for maintaining constant frequencies in radio transmission, vibrates at the rate of 20 million vibrations per second. . . .

### TRIUMPH IN TELEVISION

**T**RY this television trick—and see yourself making action!

A short time ago a big passenger

airship was about to land on a field. On the ground a crew of men focused a big camera on the scene. Instead of recording the image on film, the camera turned the light waves into electric impulses and sent them spanking off to the top of the Empire State Building. Engineers there turned dials and adjusted meter readings and sent the impulses right back toward the incoming plane.

In the cabin of the plane a television receiver turned the impulses back into light waves, and the passengers sat looking at a picture of themselves making a neat landing!

And all of this took place within a few seconds!

## HEADLINERS IN NEXT MONTH'S ISSUE

**A** GREAT, glittering green jewel in a golden box. And inside that sparkling gem the hidden treasure of a sub-atomic universe with its own retinue of microcosmic worlds. Worlds unseen by the eyes of mortal man.

In next month's complete feature novel, *WORLDS WITHIN WORLDS*, by Frederic Arnold Kummer, Jr., a young archaeologist unlocks the gateway between two planets and is projected into the shadowy realm of the infinitesimal. Alone, undaunted, he probes the secret of the world sealed in a green jewel and uncovers the amazing story of the lost universe! *WORLDS WITHIN WORLDS* is featured in the special sciencefiction novel section of the March *THRILLING WONDER STORIES*—with illustrations by H. W. Wessol

\* \* \* \* \*

**T**IME is the deepest enigma of all science. Milt Harble resolved to penetrate that riddle, remove the mantle of mystery from the world's most fascinating venture—an excursion into the future. So he built the first time-machine ever devised by an Earthman and departed into tomorrow.

*EANDO BINDER* tells you about this strange experiment with time in his novelet, *THE TIME CHEATERS*, the story of the man who wanted to change the future!

\* \* \* \* \*

**I**RYA KRUGER, brilliant woman space-engineer and physicist, was a natural rebel against all discipline. And of all the places in the Solar System, Venus, the world of mutinous life, was the best equipped to clash dramatically with her spirited personality. And conflict it did!

Mainly Wade Wellman's novelet, *THE PLANET OF CHANGE*, also included in our next issue, is a thrill-packed story of the first explorers of the cloud-veiled world. It's a story of life rampant.

\* \* \* \* \*

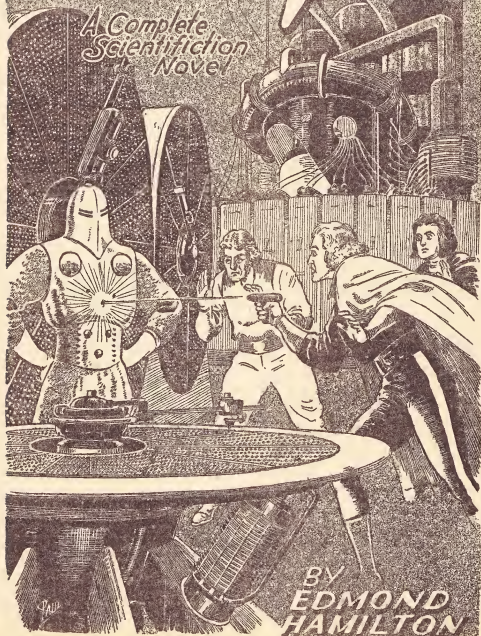
**T**HE survivors of *Venus Expedition Number 1* on their final trek! In *VIA SUN*, featured in the next issue, Gordon A. Giles concludes the startling odyssey of the men of the spaceways in the most exciting of his "Vis" trilogy. You'll find great suspense and poignant emotion in this brilliant story of the secret of the pyramids and the everlasting monument on the moon!

\* \* \* \* \*

**O**THER stories by popular writers in the March issue of *THRILLING WONDER STORIES*. And all our usual informative fact features—*SCIENCE QUIZ*, *IF*, *SCIENTIFACTS*, *STORY BEHIND THE STORY*, and others! Get the March issue for the greatest sciencefiction show on Earth! And don't forget—there's a long complete novel by a master of sciencefiction in every issue of *THRILLING WONDER STORIES*, published complete in a special section!

# DOOM OVER VENUS

*A Complete  
Scientifiction  
Novel*



BY  
**EDMOND  
HAMILTON**

• SPECIAL SCIENTIFCTION NOVEL SECTION •



Arline Cray

## Clark Stanton hurtles from the make-believe world of a Venusian dream palace to the grim reality of a for- bidden citadel of science!

### CHAPTER I

#### *The Solar Station*

**C**LARK STANTON awoke with a distant cry of alarm ringing in his ears. For a moment, the Earthman did not remember where he was as he looked around his metal-walled little room. Then it came back to him. He was here on Mercury, in the great Solar Station. He had finished his switch-shift an hour before and had retired to sleep. And now that startled cry!

"Something's wrong!" he exclaimed.

He jumped up from his cot. The movement sent him bouncing against the low ceiling. Cursing the weak gravity of Mercury, he regained the floor and pulled on his lead-soled shoes, then burst out of his chamber and ran down a corridor toward the great switch-room.

Stanton's lithe muscular figure was tense as his lead-soled shoes clumped down the corridor. His dark hair was still disordered from sleep, but his bronze, virile face grim with apprehension. Had the baffling horror that overshadowed this lonely spot on Mercury struck again?

The switch-room was a vast metal chamber along whose wall were nine gigantic switchboards. They controlled the flow of power from the Solar Station to the nine different planets. Engineers of all races—Mercurians, Venusians, Earthmen, Jovians and others, kept watch over those great panels.

The polaroid windows in the opposite wall looked out upon a desolate scene. A barren, burning plain of blackened rock stretched beneath the stupendous glare of a blazing sun. The temperature out there was far above the terrestrial boiling point—for this was the famed Hot Side of Mercury, the hottest place in the Solar System.

Out there in the sun glare towered hundreds of huge, gleaming cylinders. They were monster photo-electric cells, colossal tubes lined with sodium, that drew torrents of electric power from the stupendous solar radiation that beat on this world. Heavy cables brought the power from the cells to this domed, air-tight central building, whence it was transmitted by high-frequency

radio-beam to the other eight planets.

Stanton could hear voices from audio-phone-speakers all along the row of switchboards, speaking from far-off worlds to the engineers and switch-men here at the Solar Station.

"Increase to ninety million kilos on the Pluto beam," called the husky voice of a man on distant Pluto from a speaker.

Dial-needles jumped, and the great radio-electric generators in the lower levels of the Station building throbbed louder.

"Cut load on Neptune beam to one hundred and twenty million kilos," another, shriller voice was calling from an audio-phone.

Power from the sun, changed into electrical energy by the monster photoelectric cells out there, and sent out along high-frequency radio beams to the other eight worlds as they needed it! This Solar Station was the heart of the whole System's power supply.

Stanton saw Rik Ivers, the stocky Mercurian superintendent of the Station, talking excitedly with a few of his assistants.

"What's happened?" Stanton asked his chief.

Rik Ivers' square face was pale.

"Another Venusian has disappeared!" he exclaimed. "Dal Rath, a lineman. He went out in a heat-suit and didn't come back."

"Another one?" Clark Stanton cried, his black brows furrowed. "That makes four Venusians that have disappeared here in the last weeks. This means trouble."

"I know," said Rik Ivers worriedly. "The Venusian ambassador is on his way here now to investigate this latest vanishing. How can we explain to him when we don't understand it ourselves?"

**T**HREE Venusian engineers had already vanished mysteriously from the Solar Station. Tiny, torn shreds of flesh and bone were all that had been found of them. Had they been killed in some weird way? Stanton wondered.

"Venus has already protested about the disappearance of Venusian citizens here," Rik Ivers was saying anxiously. "This new case will create more resentment on Venus."

"If you ask me," grunted big Zank Antar, the red-skinned Martian chief engineer, "the Venusians are behind these vanishings themselves. It will give them a pretext to take action against Mercury."

"You may be right," Stanton muttered. "We've got to get at the bottom of it."

Clark Stanton was a secret agent of the Earth Government. The Earth SS, the Secret Service Division, had sent him here to the Solar Station on Mercury, disguised as an engineer, to probe this mystery.

"Clark, you've got to find out how and by whom those Venusians are being done away with in the Solar Station," the Director of the SS had told him grimly. "Those vanishings may have a vital bearing on the interplanetary political situation."

"There is a small party on Venus that has always wanted to annex Mercury. Now they're loudly protesting against these disappearances of Venusian citizens, and demanding that Venus annex the little planet so that it can 'protect' its nationals."

Stanton had been startled.

"Annex Mercury? But that would mean that Venus would control—"

"Would control the Solar Station, yes!" the Director had finished for him. "Would dominate the most important power supply in the System. That must not happen. That's why you must solve those disappearances."

"And try to restrain your lust for battle," the Director had added warningly. "Try to forget you're 'Black' Stanton's son."

At mention of his dead father, "Black" Stanton, most famous space-outlaw of a past generation, Clark had flushed.

"I know," he had muttered. "My dad's temper came down to me, I guess, even though I'm with the law instead of against it. It gets the best of me sometimes, but I'll watch it this time."

"You'll have to," the Director had declared. "Unless I'm wrong, you're up against the most dangerous job in your career."

Rik Ivers interrupted Stanton's tense thoughts. The stocky Mercurian superintendent pointed up through a window.

"Here comes the Venusian ambassador now," he muttered. "We'd better go up to my office."

A small space-cruiser was scudding low across the sun-seared, airless rock wastes. It was the Venusian ambassador to Mercury.

They heard the doors of the air-lock atop the Solar Station building grind open automatically, heard the little cruiser landing. In a few moments Quel Edam, the thin, white, worried-looking Venusian ambassador, appeared at the office.

"I've been instructed by the Venusian government to make a full investigation of this mystery," he declared. "Four of our citizens done away with—this is serious!"

"I know," said Rik Ivers helplessly, "but there seems nothing we can do. We haven't a clue as to what happened to them."

Quel Edam shook his head.

"This will strengthen the annexation party on Venus," he muttered. "It will give the Friends a stronger argument—"



Clark Stanton

"The Friends?" Clark Stanton asked alertly.

The distraught Venusian hesitated.

"There is a secret society on Venus which calls itself the Friends of Venus," he said slowly. "Nobody knows their leaders, or their members. It's a super-chauvinistic group, working to force Venus into annexing Mercury."

"So far," the ambassador continued, "our government has resisted their pressure. Our people don't want to annex this world! But the disappearing of our citizens here are giving the Friends an excuse for demanding annexation."

"I see," Stanton muttered. His brain was racing as he considered this news.

**R**IK IVERS, the Mercurian superintendent, was speaking to the distracted ambassador.

"Do you want to look over the room and papers of this latest missing man?" he asked nervously.

Quel Edam nodded. He was following the Mercurian and chief engineer out of the office, when Stanton caught his arm.

"Will you wait a moment?" Stanton asked the ambassador. "I've something to tell that may be important."

Quel Edam stared, but assented.

"I'll follow you in a moment," he called after the Mercurian superintendent.

"Do you know of anything queer in connection with the dream traffic on Venus?" Stanton asked the ambassador when they were alone.

Quel Edam looked puzzled.

"Why, no. There are lots of dream-houses on Venus, of course—they're highly popular on my world. But there's nothing wrong about them. Why do you ask?"

"I've found out," Stanton informed him, "that all three Venusians who vanished formerly were dream-fans. So was this one who vanished today. There may be a connection between that and their strange disappearances."



"I think you're wrong," Quel Edam said. "Nearly everybody on Venus is a dream-fan these days. I am myself—see?"

The ambassador parted his hair to show Stanton two tiny electrodes imbedded in his skull behind the ears.

At that moment, it happened. There was a muffled detonation. And Quel Edam's body exploded in front of Stanton's eyes. Stanton was knocked back against the wall by the concussion. He staggered wildly up, then stood horrified. Nothing was left of Quel Edam's body but tiny, bloody shreds of flesh and cloth. The mysterious death had struck at a fifth Venusian.

"Good God, you've killed the ambassador!" came a wild voice from the door.

Stanton whirled. Rik Ivers stood there, gazing in at Stanton and the bloody shreds in horror.

"I didn't kill him!" Stanton shouted. "He exploded right in front of my eyes—I don't know how—"

"You're the murderer who's been killing all these Venusians!" Rik Ivers shouted, dazedly. He turned, yelled, "Guards!"

Clark Stanton, still half-stunned, had no explanation for Quel Edam's mysterious murder. No one would believe his incredible story. He could hardly believe what he had seen himself.

If he stayed here, he would be jailed and tried for those murders. And while he might clear himself eventually, precious time would be lost. The trail led now to Venus, he was sure—and he must follow it there, quickly!

"Guards, this way!" Rik Ivers was shouting.

Stanton leaped toward him, smashed at the Mercurian's jaw. The superintendent went down. The Earthman jumped over him and dashed up a stair toward the air-lock. He heard guards running beneath, and Rik Ivers shouting to them, hoarsely.

"Get Clark Stanton! He's the murderer, and he's trying to get away!"

Stanton reached the door of the air-lock. The lock-guard, a big Mercurian, was drawing his kappa-gun hastily. Stanton dived at the man, brought him down. He wrenched away the gun and whacked the fellow's head with it. Then he burst into the big air-lock. There were three small space-cruisers here. Stanton dived into one, slammed its door and started its cyclotrons. He pressed a firing key, and the little ship rose slowly on flaming keel-tubes. The upper doors of the air-lock, actuated by an electric eye, at once flew open. The little cruiser shot up like an arrow from the lock and screamed away from the huge Solar Station.

STANTON zipped over the gleaming domed cities of the twilight zone at a high altitude. Then he was roaring out into the blackness of space, heading outward with the sun at his back. His black eyes were blazing with action-light. The blood of his outlaw father was strong in him at such moments.

"By heaven, this is living!" he exulted. Then he remembered the Chief's warning, and his blood cooled. He told himself guilt-

ily, "I'm forgetting that I'm not an outlaw—"

He locked the firing-keys and then spent minutes hooking up the cruiser's audiophone to the secret wavelength used by the Earth SS. Then he spoke sharply into the instrument.

"Agent Stanton, calling HQ—urgent!"

In a few minutes, the cool, level voice of the Director came back across the millions of miles from Earth.

"Chief speaking. Go ahead, Clark."

Stanton talked rapidly, telling what had happened.

"It seems evident that the heart of this thing is that secret society on Venus—the so-called Friends of Venus," Stanton concluded. "They're behind this plot to force Venus into annexing Mercury. I think they killed these Venusians here to make a pretext."

"And somehow, they must be connected with the dream traffic on Venus! For all five of the Venusians killed on Mercury, including the ambassador, were dream-fans. That can't be just coincidence. I've no idea of how they were killed yet—but I feel sure it's connected with the dream traffic on Venus. I want to go to Venus and follow this lead."

"Then go ahead, Clark," replied the Director's crisp voice. "Can you make Venus in that cruiser you stole?"

"Easily," Stanton answered quickly. "But I'll have to land outside Venusopolis so the ship won't be recognized."

"Remember," warned the Director, "if you're captured, we can't do anything to help you."

"I understand," the Earthman said drily. "It's sink or swim by my own strength. I'll do my darnedest not to sink."

Stanton switched off and went back to the firing-keys. The cruiser shot faster as he pressed down more of the keys. Ahead a pearly white bead of light gleamed bright and beckoning in the void—Venus, cloudy world of mystery and dread.

"Police looking for me behind, and assassins waiting ahead," Stanton grinned to himself. "A secret agent's life is almost as good as an outlaw's, at that. Venus, here I come!"

## CHAPTER II

### *In the Dream-House*

A GREAT scattered pattern of blinking lights is Venusopolis, in the darkness of night. Away north in the metropolis lies the black blot of the spaceport, rimmed by a square of bright green lamps. Not far from it smolders the street of red-glowing xenon-lights that is known around the planet as the Street of Nine Worlds.

Here in the Street of Nine Worlds, life throbs and glitters. Motley throngs from all planets rub shoulders here, tall, thin, green Saturnians, mysterious, hollow-eyed Plutonians; brown, Mercurian sailors and swaggering Earthmen. The white-skinned, handsome Venusians outnumber all others, and there are even a few of the scaled, gray, popeyed swamp-men who ruled Venus before

the Earthmen came colonizing a thousand years ago.

Clark Stanton shouldered down this thronging street, looking like an Earthman space-sailor on leave. He was on his way toward the biggest and most popular dream-house of the city.

"It may be a blind alley," he muttered to himself. "But with the Venusian congress meeting in two days for the annexation vote, I've got to do something quick to smash the Friends of Venus!"

Stanton had landed secretly outside Venusopolis the preceding night. He had found at once that this world was strongly dominated by the mysterious, dreaded secret society. And with the murder of the ambassador, the congress was now so terrorized it would undoubtedly vote to annex Mercury!

The secret agent shouldered on along the bright street and then stopped in front of a big cement structure.

"*The Dream Palace!*" screamed a scarlet xenon-sign on its facade. "*Biggest dream-house on Venus!*"

Stanton strode inside. He found himself in a big, quiet, dimly-lighted hall across the front of the place. A dull-faced attendant touched a button as Stanton entered. Presently, out of a small office at the side, came a foppish, effeminate Venusian in elegant silks, who greeted the Earthman warmly.

"Welcome to our little house of dreams," he said suavely. "I am Slih Drin, the proprietor." He smiled thinly. "You wear the necessary electrodes, of course?"

"Of course," Stanton told him. "This isn't my first dream."

He parted the thick black hair behind his ears. Two tiny metal electrodes which had been surgically inserted into his skull to connect with nerve-endings came into view.

Stanton had had the electrodes inserted only this day, by a physician on whose secrecy he could rely.

"Ah, yes," breathed Slih Drin, beaming. "And what kind of dream would you prefer tonight, sir? Would you like to visit an imaginary world of living colors, a kaleidoscopic universe such as one can only see in dreams? Or perhaps you would like to have the experience of being an animal, or bird, or fish?"

"Or perhaps," the Venusian went on to retail his dream-wares, "you would like a charming love story, in which you woo and win a girl more beautiful than any real girl could be?"

"None of all that for me," Stanton replied contemptuously. "I want action in my dreams—adventure, and lots of it."

"Of course," agreed the Venusian quickly. "And we have just the dream for you. It's one of our very newest—a flight to the Andromeda galaxy. In it you rescue an Earth girl from flame monsters. You'll enjoy it, sir."

The Venusian hesitated a moment. "But it is expensive—very expensive," he added, shaking his head ruefully. "Five Earth dollars!"

Stanton handed him a platinum-coin.

"Nothin's too good for me," he said loudly.

SLIH DRIN motioned to the attendant, who went to a cabinet filled with flat spools of metal tape. He brought back one of the spools to the proprietor, who then led Stanton along one of the dimly lit corridors. Stanton's eyes searched the place keenly. Some of the doors along the corridor were open, and he looked through them into little dusky cubicles. In each cubicle was a couch, on which a man or woman lay in deep sleep. To the skull-electrodes of each sleeper were attached two wires that led to a squat, humming machine at the head of the couch.

Dream-adventures were the most popular entertainment in the whole Solar System now. They had replaced the telepicture shows on every planet. For in these popular dream-houses, anyone could experience any adventure desired, and it would seem like an utterly real experience. And while dreams were rather expensive, they were in no way harmful. Stanton saw a big Jovian lying face-down in one cubicle, breathing heavily in the dream-sleep. In another, a beautiful Venusian woman lay, and in another a white-haired old man. All of them attaining their heart's desire in this house of dreams!

Slih Drin led him into an empty cubicle, and motioned to the couch. As Stanton lay down on it, he placed his hand carelessly on the dream-machine at its head, and dropped a waxite pellet into the machinery. The pellet contained a slow-working acid that stung his fingers. But Slih Drin had not noticed.

Slih Drin now put the spool of tape into the dream-machine's holder, and touched a switch. With a faint humming, the spool began turning. Gently, the effeminate Venusian plugged the two wires from the machine into the tiny electrodes in Stanton's skull. He felt a wave of darkness flow through his brain as he rapidly sank into the sleep.

"Now I leave you to happiness, sir," he dimly heard Slih Drin saying, as though from a great distance.

Stanton was already deep in shoreless blackness. Soothing electrical vibrations from the machine were drugging his nerves and brain. Then, slowly, light began to appear in the darkness. It was not really light, Stanton's fading consciousness was aware. It was only an electrical impulse from the dream-machine that gave his brain the sensation of light.

The principle of the dream-machine was old. Long ago, men had learned that the brain received all bodily sensations as electrical impulses through its nerve-system. They had found that if they produced such electric impulses artificially, and transmitted them into the brain, the brain was deceived by them and experienced sensations which seemed perfectly real. Long research had classified the different electric impulses which brought different sensations to the brain. It was only necessary to transmit such impulses to the brain in correct order,

by means of a tape-record, to make the brain experience any desired sensations or adventures.

Clark Stanton now felt himself, in his dream, in a small ship that was rushing at thousands of light-speeds toward a glorious galaxy of millions of suns. But he was not Clark Stanton in the dream—he was a younger, stronger, handsomer man. He was steering his ship right into the colossal swarm of suns. He curved around huge, booming dark-stars, dived past the heads of flaring comets, and rushed breathtakingly through vast, glowing nebulae.

**T**HEN he steered his craft toward the planet of a great red sun. He landed upon that world. It was a crimson world of enchanting, fairylike beauty. In the distance against the ochre sky towered a somber black castle of soaring spires. Clad in his space suit, Stanton started through the glades toward that castle. But a monstrous, crablike red creature darted suddenly out at him. It reared high above his head, its clumsy claws reaching for him.

But he had snatched out the sword at his belt. Laughing fearlessly, he leaped in at the creature. He stabbed hard through the thick shell of its lower body. He felt the sword rip, and saw thick black blood spurt out. The monster tumbled dead. Tirelessly, he forged on toward the castle. Other creatures leaped out at him. He hewed and hacked through them—he was in dire danger every minute, yet always his sword carved a path for him.

He had reached the base of the castle. Out of the black gates of the castle wriggled its warders—hideous, crawling green worm-things, that hissed flame. But he was slashing through them, forcing into the castle, fighting up a winding stairway slippery with green blood. And he found himself in a vast laboratory. A slim white girl was there, imprisoned in a curious, transparent bell-jar.

To his right stood a fiendish-looking scientist, manipulating the controls of an instrument board. The girl, obviously the subject of some weird experiment, was pounding futilely on the glass walls of her prison for help. Suddenly something vague and black and monstrous crouched out of the shadows, its huge topaz eyes shining balefully. It was one of the flame-hurling worm-things! He fired his kappa-gun, but the weapon jammed. The scientist pulled trigger, and a thin beam lanced out. . . .

### CHAPTER III

#### *The Friends of Venus*

**S**TANTON suddenly awoke! For a moment, he was numbed mentally by the abrupt shattering of that vividly realistic dream. Then he realized that his plan had succeeded. The acid-pellet he had dropped into the dream-machine had finally eaten through a vital connection and stopped the mechanism. He was conscious again, unsuspected by anyone in this place. Quickly, Stanton unplugged the wires from his skull-electrodes and rose from the couch. He

paused in the dimly lit little cubicle, drawing his stubby little kappa-gun from inside his jacket.

"Now to find out whether Slih Drin is mixed up with the Friends of Venus," he muttered to himself, moving toward the door.

Soundlessly, he opened the door and stepped out into the dusky little corridor. No one was in sight. There was only the dim buzzing drone of many dream-machines. He started along the corridor toward the front of the place, his kappa-gun raised. As he passed the open door of the cubicle in which the big Jovian lay, Stanton paused, frowning. The Jovian had been lying face-down, before. Now he lay on his side, one arm flung across his face, hiding it. He had shifted position—yet people in the dream-sleep almost never did that!

Was the Jovian a secret guard, a watcher of the place? Stanton tiptoed in to the big man's side, and listened. But the Jovian's dream-machine was humming steadily, and his breathing was heavy.

"Getting jumpy, I guess," Stanton muttered as he went back to the corridor. "And no wonder, in this joint."

The dim hall at the front was now empty. But Stanton saw a crack of bright light under a nearby door, the door of Slih Drin's office. Noiselessly, he advanced toward it. Softly, he opened the door a crack. Slih Drin sat at a desk, checking a list of names. On the desk, too, lay a number of little oval metal capsules, which rested in a metal box.

Slih Drin's back was to Stanton. The Earthman clubbed his kappa-gun and slipped inside. The Venusian, intent on his work, did not hear. The gun-butt descended with a small thudding sound. The foppish Venusian proprietor slumped in his chair. Clark Stanton hastily closed the office door. Then he began a search of Slih Drin's clothing. He found nothing of interest. Suddenly he heard quick footsteps approaching the office door. He shrank back behind the door as it swung inward. The man who entered hastily was a tall, dark Venusian, with an arrogant, handsome, aquiline face.

This newcomer, seeing Slih Drin slumped in his chair at the desk, slammed shut the door and stepped hurriedly forward.

"Slih Drin, we've got to take precautions!" the newcomer was exclaiming. "People are beginning to suspect that there's a connection between our organization and this—"

The Venusian suddenly stopped speaking, with a hiss of indrawn breath, as he perceived that Slih Drin was senseless. The man whirled around. Clark Stanton was standing behind him, leveling his kappa-gun.

"Don't shout!" Stanton hissed swiftly. "If you do, you'll get a kappa-beam!"

**T**HE tall Venusian stood frozen, his handsome, face stiff in bewilderment, his gray eyes dazed.

"What does this mean?" he demanded coldly. "A robbery?"

"You can call it that," Stanton said coolly. "Who are you? What is it that you were exclaiming about when you entered?"

"I refuse to answer the questions of a

cheap Earthman crook," flared the other angrily.

"Keep your voice down," Stanton warned, his whisper deadly in menace. "Is your organization the Friends of Venus?"

The question hit home. The handsome Venusian stiffened as from an electric shock. "I don't know what you're talking about," he declared in a low voice.

"If you don't, you're the only person on Venus who hasn't heard of the Friends," Stanton said sarcastically. "Stand still—"

He had advanced, pressing his kappa-gun against the other's side, and was running his hand into the Venusian's pockets. He brought out the thin metal identification card that every planetary citizen must carry. And as he read the name on it, Clark Stanton's eyes narrowed.

"Kendall Klain—War Minister of Venus!" he whispered. "So that's who you are!"

Excitement flared in Stanton's brain.

"You're hooked up with the Friends—you, a member of the Venusian cabinet!"

"You're crazy, Earthman," retorted Kendall Klain contemptuously. But there was a hint of desperation now in his hard gray eyes.

"By heaven, I have struck a lead!" Stanton exulted. "It's been suspected that some men in high places belonged to the Friends. And you're one of them—you may even be the leader of the whole terrorizing outfit!"

"Go ahead and theorize, Earthman," Kendall Klain said harshly. "At any minute, Slih Drin's attendants will discover us here, and then your little drama will be ended."

"Got it all figured out, eh?" Stanton grinned at him. "Well, you're wrong. We're not going to stay here to be discovered. We're going out of here, you and I, to a nice quiet place where we can have a good long talk about the Friends. And you won't be able to call for help, either!"

As Stanton spoke, his left hand was surreptitiously drawing a little glassite bulb from his jacket pocket. He advanced toward the Venusian official. But Kendall Klain had seen his furtive movement, and understood it.

"You're not giving me any sleep-gas!" the Venusian exclaimed. "I'll give the alarm first—"

He opened his mouth to shout, desperately disregarding the menace of Stanton's kappa-pistol. Stanton dropped the gun and sprang in, clapping his hand over Klain's mouth. They struggled fiercely, twisting and stumbling together around the little office. Klain fought like a swamp-cat to free himself. But Stanton, keeping him gagged with one hand, finally managed to break the little thin glassite bulb beneath Klain's nostrils.

The Earthman got a pungent whiff of the potent sleep-gas that made his own senses reel. Then Kendall Klain slumped limp in his grasp, overcome by the vapor.

"So far, so good," panted Stanton, stooping to pick up his kappa-pistol. "Now if I can only get him out of here, to some place where I'll have time enough to make him talk."

CAREFULLY, Stanton opened the door a crack and peered out into the dim hall of the dream-house. It was deserted. Throwing Kendall Klain's limp body over his shoulder, he started straight down the corridor toward the rear. There was a door at the back, as he had expected, for those clients of Slih Drin who arrived by rocket-flier. In a moment Stanton was standing out in the dark, steamy night, holding Kendall Klain's limp body. He was in a long enclosed court behind the dream-house, and there were two torpedo-shaped rocket-fliers and several rocket-cars parked here.

Stanton glimpsed the insignia of the Venusian War Department on one of the fliers, and recognized it as Klain's craft. He hastened to it, dropping the senseless cabinet minister on the floor. Then he spun around to slam shut the door of the flier. A huge, dark figure stood in the door, holding a kappa-pistol! It was the big Jovian whom he had suspected of shamming sleep in the dream-house!

Without an instant's hesitation, the Earthman charged desperately at the Jovian in the doorway.

"Wait—" the Jovian exclaimed startledly.

Stanton expected a kappa-beam to drive through his body as he made that desperate rush. But it didn't. And then he had hit the Jovian, was grabbing the big, squat man's gun-arm in an effort to wrest away his weapon.

"Don't—you fool!" panted the Jovian, trying to tear Stanton's hands away. "I'm not a guard! It's me—Bemo Burmer!"

Stanton stiffened, then dragged the gasping Jovian around to bring his face into the light of the tiny cowl-lamp. He instantly recognized that massive, scarred, heavy face and shock of bristling brownish hair.

Bemo Burmer, one of the ace secret agents of the government of Jupiter! Stanton had met this big Jovian before at different places in the Solar System, sometimes as a rival and sometimes as a friend.

"Burmer! What the devil are you doing here?" Stanton demanded. At that moment came a dim, fierce cry from inside the dream-house.

"They've found Slih Drin!" Stanton cried. "No time to talk now—we've got to blast out of here quick!"

He lunged toward the controls of the rocket-flier. Expertly, he slammed the cyclotron switch as Bemo Burmer swung shut the door.

There was a muffled uproar now inside the dream-house. Stanton's hands smashed down on the firing-keys. Atomic energy from the cyclotrons raved out of the stern tubes and catapulted the little flier violently from the ground. It cometed upward into the night.

## CHAPTER IV

### *Three Spies*

THE lights of Venusopolis swept dizzily past below, rapidly receding as the flier gained altitude. Stanton disregarded all traffic rules, darting up through one level

after another to get out of sight.

"Head southeast," Burmer's bass voice called over the roar of cyclotrons. "We've got a hideout in this town."

"Before we go any farther," Stanton rasped, "what were you doing in that dream-house?"

"Spying, the same as yourself," retorted the big Jovian. "I was sent here by Jupiter to break up this damned terroristic order, the Friends of Venus—to keep them from forcing Venus into the annexation of Mercury. It's just as important to Jupiter that Venus doesn't get control of the Mercurian Solar Station, as it is to Earth and Mars."

"Mars?" Stanton repeated. "Where does Mars come in? Do you mean—?"

Burmer chuckled.

"Yes, Mars has got an agent here too. Nim Narth. He and I are working together on this."

"The devil you are!" Clark Stanton exclaimed. "Why, you and Narth nearly killed each other two years ago on Pluto when you were both after that stasis-bomb secret."

"And you stepped in and took the secret away from both of us, for Earth," chuckled the big Jovian. "But Narth and I are working together on this thing—it means a lot to both our worlds. And it means just as much to Earth, Clark. Will you throw in with us?"

Stanton decided at once to join forces with the Jovian and Martian agents. For once the interests of Mars and Jupiter and Earth were mutual.

"All right, I'm with you, Bemo," he declared. "But we've got our work cut out in smashing the Friends of Venus. They've got a stranglehold of terror on this world now."

"As if I hadn't found that out!" Burmer said ruefully. "I decided there might be a tie-up between the Friends and the dream-houses because most of the murdered victims were dream-fans. So I was in the dream-house there to see what I could learn. I had my electrodes fixed so I could fake dream-sleep."

"I followed the same lead from Mercury," Stanton told him. He went on to narrate what had happened at the Solar Station. "Undoubtedly the four Venusians and the ambassador killed there were assassinated by the Friends, in some weird, baffling way," he observed. "I wonder if our friend here—the War Minister of Venus—is head of the society," he ended.

Burmer chuckled when he heard Stanton's dramatic departure from Mercury.

"You're Black Stanton's son, all right," he rumbled. "You'd have made a swell outlaw yourself."

"I wish people would forget my parentage," Stanton flashed. "I'm not ashamed of my father and his exploits, but I hate to have everyone expecting me to turn pirate at any moment."

"Sorry, Clark," said the big Jovian. He looked out of the ship's window and then directed, "Straight east over the shore, Clark. The hideout that Narth and I are using is one of those floating villas."

The flier had taken them to the shore of

the vast Venusian ocean. Out on that calm, nighted sea below sparkled little clusters of lights. These were some of the System-famous "floating villas" of the richer Venusians, country estates that floated upon the surface of the ocean. They consisted of huge scows of the super-light metal, levium, upon which gardens and homes had been built.

"That dark one ahead is where Narth and I are staying," Burmer said, and then he grinned. Some millionaire owns it—but he's away with his family for a six-months' trip to Saturn."

"It's a swell hideout, all right," Stanton declared as he sent the flier slanting downward toward the dark floating villa.

The estate was two hundred feet square, with a cubical mansion of white levium metal at one corner, and the rest of the great scow covered by beds of soil in which a garden of trees and shrubs grew.

**T**HE flier landed smoothly in the vague, dark gardens. Burmer picked up the senseless form of Kendall Klain, and led the way toward the mansions. The dark sea stretched all around them, lulling the floating villa by its peaceful motion. In the gardens, blossoming flame-trees and clumps of the pale, colorful "cloud-orchids" filled the air with a rich fragrance. The house loomed before them. Its shuttered windows showed no sign of light, but when Burmer rapped on the door in a signal, the door opened and spilled out ruddy xenon-light upon them.

Nim Narth, the Martian spy, stood in the doorway. His bald, red head gleamed in the light, and his thin red face and blinking eyes peered out uneasily at them.

"Who's there?" the Martian demanded in his high, shrill voice. "Is that you, Bemo? Who's with you?"

"Clark Stanton, your old pal of the Earth SS," Burmer rumbled as he strode inside. "He's on the same mission here as we are—and he's thrown in with us."

Stanton stepped inside, and closed the door. Then he turned to the Martian.

"Hello, Narth," he greeted. "Last time I saw you was in that scrape out on Pluto."

"I remember," Nim Narth nodded dismally. "You outwitted me neatly. I was a sick man then—those horrible Plutonian blizzards had me in bad shape. But I'm ready for anything now!"

"Suppose you get into action by bringing this Venusian back to consciousness," Burmer rumbled impatiently. "We think he may be the head of the Friends of Venus."

"You do?" Nim Narth exclaimed. Into the Martian's blinking eyes came a gleam. "What makes you think so?"

Briefly, Stanton told the Martian agent of his adventure in the dream-house. Narth listened intently. This Martian, Stanton knew, was one of the keenest secret agents in the whole System. A wizard biologist, master of all the legendary Martian biological technique, he was as shrewd and cunning a spy as the nine worlds contained.

"If Kendall Klain is really the head of the Friends," Narth muttered when he had heard, "we can smash the whole order by

forcing him to name the others."

"Well, he can't tell us anything while he's still unconscious," Bemo Burmer declared. "Bring him out of it."

Narh went to a cabinet that contained a mass of compact scientific instruments and supplies. He came back with a hypodermic. Deftly, he injected a drop of colorless fluid into the War Minister's neck. Presently Kendall Klain coughed, opened his eyes bewilderedly, and then uttered a hoarse cry as he saw the Jovian, Martian and Earthman bending over him. He jumped convulsively to his feet.

Burmer grasped him and held him like a squirming child in his great grasp. "Be quiet, little man, or I'll break your neck now instead of later," threatened the massive Jovian.

Kendall Klain stared, his handsome face white and ghastly, at this grim trio of interplanetary spies.

"I don't know what you're talking about," he declared flatly. "When you three are caught, you'll suffer for daring to kidnap a cabinet minister."

Stanton's black eyes narrowed to slits.

"We can make you talk, Klain," he rapped. "Narh here is a Martian, and you know the things that Martian surgical technique can do to a man. Do you want me to let him work on you with his instruments for a while?"

Stanton hoped the threat of torture would

*"I'll remove Klain's brain first," the Martian said*



"What—what are you going to do with me?" he stammered.

"Klain, we won't waste time," Clark Stanton clipped, his brown face hard, his black eyes boring the other. "You're the head of the Friends of Venus, by my guess. You know who the other members are and where they can be found. And you're going to tell us!"

**K**ENDALL KLAIN was now recovering from his first shock of bewilderment. His handsome, aquiline face hardened defiantly.

work. But it didn't. The Venusian called his bluff.

"You won't do that to me," Klain stated assuredly. "Earthmen don't do such things, nor let them be done."

"The devil, we're getting nowhere!" Bemo Burmer rumbled angrily. His grip tightened on the Venusian. "Let me rough up this handsome fellow a little. I'll guarantee that—"

At that moment came a startling interruption. It was a thin, faint buzzing sound that rose out of their very midst. It sounded again, as they stared bewilderedly. Then Stanton located the source of the buzzing. It came from one of the big flat metal buttons of Kendall Klain's silk jacket. He examined the button swiftly. And he uttered a low exclamation.

"This button is a disguised, tiny audio-

phone!" he told the others. "And someone's calling Klain!"

Klain's handsome face paled a little. For a third time, the little masked audiophone buzzed insistently.

"Bemo, keep your hand over Klain's mouth!" Stanton ordered. "I'm going to answer this thing."

The massive Jovian at once clapped his big hand across Klain's lips. Then Stanton flicked the tiny switch hidden on the back of the button-audiophone. At once a hollow, metallic voice issued from the tiny instrument.

"Chief speaking!" it rasped impatiently. "Why didn't you answer before, Klain?"

## CHAPTER V

### *Perilous Plan*

CLARK STANTON could mimic voices with expert skill. It was an invaluable accomplishment for a spy, and he had spent many long hours in the past training himself to reproduce the differing accents of different planetary races. Now, without hesitation, he brought his skill into play. Lowering his head, he spoke into the tiny button audiophone in accents as near the high-pitched voice of Kendall Klain as he could approximate.

"Klain speaking—what is it?" Stanton asked.

"Where are you now?" the faint metallic voice demanded.

Stanton hesitated only a second, and then gave the answer that seemed safest.

"At home. Why?"

"Did you see Slih Drin tonight as I ordered you?" demanded the voice.

"Not yet. I was just going there," Stanton answered, hoping he was not blundering.

"Don't go there, now," snapped the Chief's metallic voice. "I've just received a report from Slih Drin. He was attacked tonight, and stunned. He doesn't know who did it, but suspects an Earthman and Jovian who were missing from the place after the attack."

"What do you want me to do?" Stanton asked, his pulse racing.

"Stay away from Slih Drin's," the hollow voice ordered. "The attack on him may have been an attempt to penetrate our organization. I think this Earthman and Jovian are foreign spies who are trying to pry into the Friends. I have their descriptions, and am having a hunt for them started." The Chief added harshly. "That's all for the present. I will see you tomorrow night, as arranged."

The metallic voice ceased. Clark Stanton switched off the tiny instrument, and turned with blazing eyes to the Martian and Jovian.

"You heard? That was the leader of the Friends speaking, that man who called himself the Chief!"

"It didn't sound like an ordinary man's voice to me," muttered Nim Narth. "There was something queer and hollow about it."

Clark Stanton stared hard into the pale, shaken face of the handsome Venusian.

"There's no use denying the truth any

longer, Klain!" he snapped. "You're one of the Friends. Who is their Chief?"

"I've nothing to say," Klain muttered sullenly.

"Are you going to let him get away with this, Clark?" appealed the big Jovian furiously. "We can wring it out of him with a little torture!"

Klain laughed bitterly.

"That's where you're wrong, Jovian. There isn't one of the Friends who really knows the identity of the Chief. You could torture me all night and be none the wiser."

There was a ring of truth in the Venusian's voice that they all recognized. Stanton swore.

"If I'd only dared to ask the Chief where he was!" he said. "But the question would have him put him on his guard and made him instantly suspicious."

"And now he's got all that pack of murdering hell-cats he leads looking for you and me, Clark," rumbled Bemo Burmer. "We're getting nowhere in a hurry. And a lot of help Narth is!"

Clark Stanton was studying the Martian. And a queer light came into the Earthman's eyes.

"There's one way we can get to the Chief," Stanton muttered slowly. "It'd be cursed risky, but it ought to work, if Nim Narth is still as smart as he used to be."

"Who says I'm still not smart?" the Martian roared. "What's your idea, Earthman?"

STANTON explained.

"You heard the Chief say that he'd see Klain tomorrow night, as arranged? Suppose that I pose as Klain until the Chief contacts me—and then grab him?"

"You impersonate Klain?" Burmer repeated. "Why, you couldn't get away with that, Clark. You'd be spotted in a minute by Klain's friends or servants."

But Nim Narth suddenly understood what Stanton was driving at. The Martian's blinking eyes widened.

"Clark, is it the brain-exchange you're thinking of?" he cried.

"That's it," Stanton nodded tensely. "You've done it before, Narth—could you do it again?"

Nim Narth looked serious.

"I suppose I could do it. I have enough equipment here. But it's a perilous business at the best, Clark. One that we Martians have never used except in dire emergency."

"This is a dire emergency!" Stanton exclaimed. "This is the only way we can expose the Chief!"

Bemo Burmer's jaw dropped.

"I've heard about the brain-exchange process, but I never put much faith in the stories. Do you mean to say that Narth can do that?"

Stanton laughed grimly.

"He can do it, all right. He did it out on Saturn four years ago, and with it beat me out on a game in which we were working against each other."

"You mean, then," Burmer continued incredulously, "that Narth can put your brain in Klain's body, and vice versa?"

Nim Narth shrugged.

"I can, though it's about the most delicate and risky operation known, even to Martian technique."

Kendall Klain, the Venusian prisoner whom Burmer still held, had listened unbelievably.

"You can exchange bodies between this Earthman and myself?" he cried incredulously.

And then, strangely enough, a peculiar, fleeting smile crossed the Venusian's face.

"Put him out, Narth," Clark Stanton commanded sharply. "He looks too pleased with himself—he's plotting something."

The Martian got a sleep-gas capsule and broke it under Kendall Klain's nose. In a moment, the Venusian once again was senseless.

"How long would the operation take, including healing?" Stanton asked the Martian.

"About an hour for the actual operation," Narth answered. "Healing is practically instantaneous when you use Martian therapeutics."

"Then here's my plan," Clark Stanton told them. "Once I—my brain—is in Klain's body, I'll go back to Klain's home, playing his part. Nobody will suspect me, if I watch myself and make no wrong moves. Tomorrow night the Chief will contact me somehow. When he does, I'll call you. We three will grab him, and public exposure of him as a prisoner will smash the Friends' reign of intimidation at once."

"It sounds well enough," Burmer rumbled uneasily, "but what about your own body, Clark? It'll have Klain's brain in it!"

"Yes," Narth said, "but I'll only place Klain's brain in Clark's body until he returns—then I can simply reverse the exchange."

"But can an Earthman's brain be transplanted into a Venusian's body, and vice-versa?" Burmer asked doubtfully.

"Why not?" Narth countered as he made ready for the operation. "There's no real anatomical difference between the two races, since the Venusians are themselves descendants of the Earthmen who colonized this world a thousand years ago, the same as you and I are remote descendants of Earthmen colonists."

"It sounds all right, but I'd hate to have it done to me!" declared Bemo Burmer.

Stanton grinned at him.

"Don't be so alarmed, Bemo. With Narth doing this, it's absolutely safe."

"I'll have to prepare the saline-serum solutions and check my instruments," Nim Narth declared. "Bring out those two tables, Bemo, and put the Venusian on one of them."

**I**N a half hour, the Martian was ready for the operation which was a legendary feat of the biological wizardry of his native world. Kendall Klain's unconscious form lay on a long metal table, and Stanton stretched out on another table beside it. Between the two tables stood a square stand bearing Narth's intricate instruments, and two square vessels of pale liquid.

Stanton felt an uncontrollable creeping of

the flesh as he stared at the pale, handsome face of the senseless Venusian. Within an hour, that would be his face—his body!

The Martian's blinking eyes gleamed with professional passion as he took up a small round instrument and bent over the head of the Venusian.

"I'll remove Klain's brain first," he muttered.

He poised the instrument over Klain's head. A thin, circular white ray of force emanated from it, cleaving into the Venusian's skull.

"Without this beam-trephine, with its automatic depth-adjustment, it would all be impossible," Narth muttered as he worked. "Imagine trephining with saws, as they did a thousand years ago."

Calmly, he lifted a dome-shaped section of Klain's cranium away, exposing a spongy gray mass. As Stanton and Burmer watched fascinatedly, the Martian expertly drove tiny beams down around the mass of the brain, working with a deftness born of long skill.

"Have to sever the twelve pairs of cranial nerves without mangling them, or it would all be hopeless," they heard him muttering. "Ah! And now to cut and ligate the blood-vessels of the spinal cord. The scalpels and metal clamps they used to employ for this could never do this job. But this tissue-joining ray can accomplish ligation that will hold perfectly until the veins and arteries are joined again, and anastomosis has begun—"

In a few minutes, Stanton and Burmer saw the Martian coolly lift the gray mass of Klain's brain out of his skull and deposit it in one of the square vessels of pale liquid.

"The saline-serum solution will hold it physiologically inhibited until I'm ready," he declared. "Though I daren't keep it in that state too long—"

He was turning to Stanton as he spoke, holding a sleep-gas capsule to his nose. "All right, Clark?" he asked anxiously.

"All right—go ahead," Stanton answered as calmly as he could.

He heard the thin sound of the capsule being broken under his nose. He inhaled the pungent gas—and then his head reeled and he dropped into bottomless abyss of darkness. He seemed to float in that darkness for eternities. And then sensation gradually returned to him, in the form of a blinding headache. Stanton opened his eyes. Narth and the Jovian were bending over him. Narth's blinking eyes were beaming.

"A complete success!" he declared proudly.

Stanton felt a cold, creeping awe. He spoke, in a high-pitched voice that sounded strange to him. "You mean—"

**N**ARTH nodded. "It's done. Here, look at yourself."

He held a mirror. Stanton looked into it—at the handsome, aquiline face of Kendall Klain. His face, now, in truth! He looked a little wildly at the other table. On it lay his own body—the muscular body of a black-haired Earthman, eyes closed in unconsciousness.



"He's still unconscious and I'd better keep him that way until you get back," Narth declared. "Otherwise, he'll be shouting and screaming about what we've done to him."

Stanton nodded unsteadily.

"Keep him unconscious, then. Now help me to sit up."

"How do you feel, Stanton?" asked Burmer, his massive face anxious. "Or should I call you Klain, now?"

Stanton essayed a shaky grin.

"Call me Stanton-Klain and the other fellow Klain-Stanton," he suggested. "I feel as though my head is coming apart."

He ran his hand over his head. His soft, smooth dark hair—the hair of Kendall Klain—felt unchanged, and he could detect no scar.

"Martian therapeutics," Nim Narth said proudly. "Long ago, my people found out how to heal severed tissues almost instantly, by the ray that stimulates the growth of new cells at unbelievable speed."

Stanton stood up uncertainly. He looked down at his new, tall body, clad in rich white silks. A super-scientific metamorphosis had changed him, an Earth spy, into one of the rulers of Venus!

## CHAPTER VI

### *Incredible Impersonation*

STANTON tried to overcome the weird feeling of unreality that possessed him now that he had another man's body. Bemo Burmer was still staring at him in awe.

"I'll go to Kendall Klain's house at once," the Earthman said rapidly in his new, high-pitched voice, "and wait for the Chief to contact me. When he does, I'll call you at once."

"But aren't we going with you?" Burmer asked anxiously.

"You can't!" Stanton exclaimed. "It would give the whole thing away for you to be suddenly intimate with Klain."

"Besides," he added, "the Chief has got all the Friends looking for you, Bemo, and for me—the real me, I mean. You'll have to lie low here for the time being."

Burmer reluctantly agreed.

"Do you know where Klain's home is?" he asked.

"One of those big mansions that face Government Square, isn't it?"

The Jovian nodded.

"The one on the southeast corner. Klain has no family, thank Heaven, but he lives in style."

Stanton went to the door. He paused there, looking back at the lithe, senseless figure on the table.

"I'm depending on you to see that nothing happens to my—my body," he said steadily. Horror gripped him at the thought of an accident compelling him to remain in this alien body.

"We'll keep it safe, Clark," Nim Narth assured the Earthman as he hurried out of the mansion into the garden of the floating villa.

The night was still black and heavy, but away in the east a thin gray pallor was be-

ginning to show low above the heaving sea. Dawn was coming. Hastily Stanton entered Klain's rocket-flier. In a few moments he was humming up from the floating villa at a high speed, heading over the sea toward the city. The soaring, illuminated white tower of the Venusian capitol building guided him. Kendall Klain's residence was an oblong, three-story mansion of pale pink stone.

Stanton unhesitatingly landed his flier in the paved court behind the structure. He strode through the paling dawn toward the rear entrance of the mansion. His heart was beating rapidly—his incredible impersonation was now to be put to the acid test. A bland-faced Venusian butler opened the door from inside as he approached.

"I waited up for you, sir," the man said respectfully as Stanton entered. "Would you care for some breakfast?"

Stanton thought swiftly. Evidently Kendall Klain was in the habit of keeping late hours.

"Not now," the Earthman said brusquely. "I'll call you if I change my mind."

As Stanton walked on down a long hall paneled in rare, dark swamp-wood, he felt a little reassured. He walked down the corridor purposefully, as though he had lived in this place all his life. But when he emerged from it into a round, stately marble foyer, he paused, inwardly doubtful. Then his eyes rested on an open door beyond which was a large office.

"I'm going to work in my office a while," he told the butler crisply. "Don't disturb me."

"Yes, Mr. Klain," the Venusian servant said respectfully. He added, "Miss Cray called a little while ago by audiophone."

"Who?" Stanton asked, before he thought.

THE servant's bland face was surprised. "Why, Miss Arline Cray, your fiancée."

Stanton could have bitten his tongue off. He had made a bad slip already.

"What did she want?" he asked as coolly as he could.

"She asked me to tell you, sir, that she would be here at ten o'clock to go with you to the Presidential Ball."

"All right," Stanton said casually. "You may go. Don't disturb me until morning."

He strode into the office, shut the door behind him. Stanton leaned heavily on the door, breathing unsteadily in relief at this momentary respite.

"So I've got a fiancée!" He whistled to himself. "That's something I didn't expect. And if I have to go with her to that ball tonight, what becomes of the contact the Chief was supposed to make with me?"

A renewed feeling of unreality swept him as he glimpsed himself in a tall mirror opposite. That tall, dark, handsome Venusian in white silks frowning at him—could it be he?

"You're Kendall Klain now," Stanton told himself grimly. "You've got to keep remembering that every minute."

Then he moved toward the polished swamp-wood desk, excitement rising in him. There might be some information about the Friends in Klain's papers—

He swung about, startled, as there came a sharp knock on the door, followed by the entrance of the bland-faced butler.

"I told you not to disturb me," Stanton said angrily.

"I'm sorry, sir, but President Lorrow has just sent an urgent message asking you to come at once to the Capitol."

Stanton stiffened. What did the President of Venus want with him—with Klain—so suddenly? Was he—suspected? That was impossible, surely! He must go ahead with his impersonation and hope to carry it through.

"Very well, I'll go at once," he said quickly.

"I have your rocket-car waiting, sir," the servant told him.

**I**N a few minutes, Stanton was whizzing through the morning light toward the towering white spire of the nearby Capitol. It was a typical Venus morning, with the perpetually clouded sky filtering through a strong but dull white daylight. Venusopolis had awakened to full activity, pedestrians and rocket-cars streaming through the streets, fliers humming overhead.

Stanton strode rapidly into the huge white cement tower. An orderly in the black Venusian uniform met him inside.

"The President and the rest of the cabinet are in the council room, sir," he said quickly. "They're waiting for you."

Where the devil was the council room, Stanton wondered? He couldn't blunder around in search of it, with this orderly watching.

"Go ahead and tell them I'm coming," he told the orderly.

A little surprised, the orderly hastened down one of the long marble halls that opened from the great rotunda in which they stood. Stanton followed at a little distance. He saw the orderly dart into a cross-corridor, enter a door in it. In a few minutes, Stanton went down that same cross corridor, and walked boldly through the same door. He found himself in a medium-sized room paneled in gleaming nickelloy sheets. There was a long table, around whose end four Venusians were gathered. Stanton recognized the four men instantly. Their faces were familiar to everyone on Venus, for they were the President and his cabinet!

President Jon Lorrow was rising at the end of the table. A gray-haired man of fifty, his fine face was haggard, his deep eyes fearful and haunted. Sessue Gurn, the vice-president, a stout, ruddy Venusian peering through thick bifocal spectacles, looked badly worried also. And Than Natal, the suave, white-haired Foreign Minister, and Berk Ellerman, the solid, aggressive-faced young Minister of Justice, looked to be under a strong strain also.

"Klain, I'm glad you're here," murmured the President. His haggard face twitched. "Things are getting worse."

"What's happened, sir?" Stanton asked quickly.

"The Chairman of the Congress was murdered last night by the Friends," Lorrow an-

swered heavily.

Stanton stiffened.

"Ranl Cay murdered?"

Lorrow nodded sadly. "Yes, assassinated as horribly as all the rest have been. The fragments of his body were found in his office this morning."

Stanton was taut. This was bad news indeed! Ranl Cay, the chairman of the Venusian congress, had been one of the few government members left who had dared speak out against the plan to annex Mercury.

"You know what this means," Lorrow was continuing heavily. "When the congress meets tomorrow, it will inevitably vote for the annexation. Ranl Cay's death will intimidate the others even more."

His shoulders sagged.

"And that annexation will make every planet in the System hostile toward Venus. It will mean a dark, uncertain future for our world."

Than Natal, the polished, suave Foreign Minister, nodded thoughtfully.

"The other planets will certainly be alarmed and indignant if we gain control over the solar power-stations on Mercury," he murmured. "It will make war likely."

Sessue Gurn, the stout, spectacled vice-president, uttered a dismal sigh.

"Murder—intrigue—war," he groaned. "It gets worse all the time. I wish to heaven I'd stayed in my laboratory, where I belong. A scientist has no business going into politics."

Berk Ellerman, the aggressive young Justice Minister, had been trying to speak, and now he interrupted Gurn.

"Before we go any farther," rasped the young Justice Minister, "I'd like to tell you that I think we have a traitor in this cabinet."

President Lorrow was startled. "Whom do you mean?"

Ellerman pointed an accusing finger straight at Stanton-Klain.

"I mean him!"

## CHAPTER VII

### *The Horror at the Ball*

**CLARK STANTON** was thunderstruck. Had he given his impersonation away by some slip that Ellerman's keen eyes had noticed? Was he about to be exposed as a masquerader in Klain's body? Ellerman's hard eyes were fixed on his face in bitter accusation and hate. For the moment, Stanton was too stunned to make a reply. Then the President broke the silence.

"What in the world do you mean by saying that Klain is a traitor?" he asked.

"I mean," Ellerman replied harshly, "that I believe Kendall Klain is one of the Friends of Venus."

A startled exclamation rose from all the others. Yet Stanton felt a sensation of comparative relief. Ellerman, then, had no suspicion of his weird impersonation. The fact that he suspected Klain's connection with the murderous secret order was not so dangerous.

"You must be crazy to make such an ac-

cusation!" President Lorrow was telling Ellerman vehemently. "Klain has served in this cabinet longer than you have."

"Nevertheless, I believe that he's secretly one of these Friends, that he's in favor of the annexation scheme!" Ellerman charged. "Why has Klain never spoken out against the annexation scheme? Why has he refused to cooperate with my department in hunting down the Friends?"

Stanton saw that the accusations might stick unless he defended himself. He faced Ellerman scornfully.

"You're raving," he said forcibly. "As Justice Minister, it's your job to smash the Friends. You've failed, and now you try to blame me for your failure." Stanton balled his fist and started forward in assumed fury.

As he had expected, President Lorrow sprang between him and the Justice Minister.

"We'll have no brawling!" Lorrow's voice rang authoritatively. And then he told the Justice Minister severely, "And we'll have no more wild accusations like yours, Ellerman. You're letting your dislike of Klain run away with you."

"I'm sorry, sir," Ellerman muttered, "but I still haven't changed my opinion. And if I ever get proof—"

"That's enough," Lorrow ordered authoritatively. "We've more to do here than to bandy baseless charges. We've got to think about what we'll do when the congress meets tomorrow."

Sessue Gurn shrugged his fat shoulders hopelessly.

"What can we do?" the spectacled vice-president asked dolefully. "The congress members are scared to death, and this murder of Raul Cay will finish them. There'll be two hundred votes for annexation, and not more than twenty against it—if that many."

"We've got to try to stiffen them to vote against annexation!" Lorrow declared. "I shall contact as many members as possible at the ball tonight, and you must all do the same. That's our last chance now."

"And it's hardly any chance at all," Than Natal said hopelessly as they broke up to depart.

Stanton was glad to get out of the capitol building, where he had felt every moment the terrific strain of maintaining his weird impersonation.

"Even my father was never in a situation as crazily fantastic as this one," he muttered to himself. Then his shoulders squared. "But if he had been, he'd have carried it through."

He made his way through the crowd of anxious citizens outside, to his rocket-car. As he sped homeward, Stanton's mind was in feverish turmoil. Things were getting complicated! When he reached Kendall Klain's pretentious mansion again, Stanton felt utterly fatigued.

"I'm going to sleep," he told the bland-faced Venusian butler. "See that I wake in time for the ball tonight."

Stanton's dreams were chaotic. He woke to find that darkness had fallen outside, and that the butler was gently shaking him.

"It's time to dress for the ball, sir," the

servant informed him. "Your fiancée will be here shortly."

STANTON felt a little dazed, and looked bewilderedly around the room and then down at his own unfamiliar body. Then full remembrance of the part he was playing came back to him.

He bathed and dressed in the elegant black silk evening attire that the servant had laid out. As he was finishing, the man came back.

"Miss Cray is here, sir," he reported.

Arline Cray, his fiancée—or rather, Klain's fiancée. Here was another dangerous ordeal for him! Nerving himself, Stanton strode down to the softly lighted marble hall. A girl in clinging white silk evening dress came quickly toward him.

She was one of the loveliest Venusian girls Stanton had ever seen. Dark and slender, she had the midnight hair and velvety olive skin that have made the cloudy planet's women a synonym for beauty. Stanton braced himself to play his part. This was his fiancée, and he must act accordingly.

"Arline, darling," he exclaimed, stepping forward and taking her in his arms to kiss her.

He just felt the fragrance of her parted red lips against his own. And then, to his amazement, the girl pushed him violently backward.

"Keep your hands off me, Kendall Klain!" she exclaimed angrily.

Stanton was astounded.

"Why, I don't understand—"

"You understand well enough!" Arline Cray declared furiously. "Just because I am playing the part of your fiancée for the sake of the Friends, you think you can take advantage of it."

It burst on Stanton like a thunderclap. This girl, too, belonged to the dreaded Friends of Venus! Her engagement to Kendall Klain was only a sham, probably to allow them to meet often without arousing any suspicion. And he, like a fool, had thought the engagement a real one and had tried to play the part of a fond lover. He had blundered badly, Stanton knew. In the beautiful Venusian girl's snapping eyes there was bitter indignation and anger.

"You know I detest you, Klain," she was saying, "and that I only carry out this fiction because it's the Chief's orders. You must be out of your head."

The accusation was so dangerously apt that Stanton stiffened. He tried to repair his blunder.

"There's no harm in mixing pleasure with business, is there?" he asked coolly. "You're a beautiful girl, Arline—and after all, we are supposed to act like lovers."

"In public, but nowhere else," the Venusian girl said hotly. "I'll complain to the Chief of your conduct when we see him tonight."

"I'll simply deny everything you say, when the Chief comes," Stanton retorted, with a smirk he thought appropriate.

"When the Chief comes?" repeated Arline Cray in surprise. "Why, you know very

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well that the Chief never comes here—that we're to go to the Citadel to report to him as soon as we can leave the presidential ball."

Stanton cursed his own rashness in making such a statement. It was apparent now that he and this girl were to report to the Chief of the Friends at some place called the Citadel.

"That's what I meant, of course," he grumbled. "Let's quit this scrapping and go on to the ball."

IT seemed to Stanton that there was a frown of suspicion in the girl's eyes as they went out to the waiting rocket-car. Had his second slip made her suspect that he wasn't really Kendall Klain? This tangle in which he was enmeshed was getting fantastic. But he clung fiercely to the thought that, if he could carry it on a little longer, he would at last reach the Chief in his mysterious Citadel.

The Presidential Palace was blazing with light as he and Arline passed in through its wide doors. The ballroom was a brilliant scene. Under its great chandeliers thronged hundreds of splendidly attired men and women—the members of the Venusian congress, officers of the army and the space-fleet, ambassadors and attachés from the other eight planets. But a strange tension of fear seemed dominant.

"The War Minister, and Miss Arline Cray!" announced a major-domo loudly as Stanton and the girl entered.

People in the throng spoke to Stanton, and he replied with nods and smiles and monosyllables. He did not know most of these people, but he realized that as Kendall Klain he was supposed to know them. It was with a little relief that he saw the stout figure and spectacled, worried face of Sessue Gurn coming toward them. The fat vice-president was mopping his brow.

"It's useless trying to talk to these congress members," Gurn panted as he joined Stanton's group. "I've tried, as the president wanted us to, but none of them will listen. They're almost all so frightened of the Friends that they'll vote tomorrow for the annexation to save themselves from being murdered."

Stanton stiffened as he saw Berk Ellerman approaching. The young Justice Minister greeted him with a curt nod, and his stare was still hard and suspicious. But Ellerman's face relaxed as he turned to Arline Cray.

"I'm glad to see you again, Miss Cray," he told the beautiful Venusian girl. "But I'm sorry to say that we've still found no trace whatever of your father," he added earnestly.

"I know that you're doing all you can to find him," Arline Cray told the Justice Minister.

Ellerman shook his head. "It seems incredible that a famous scientist like Wilson Cray could disappear without trace like that. Yet after six months, we've still not an idea of what happened to him."

Clark Stanton felt a quick throb of excitement. So Arline's father had disappeared six months ago? That was just the time

when the Friends of Venus had begun their activities! Was it possible that the girl's father was the leader of the Friends, the mysterious Chief?

Stanton's racing thoughts were interrupted by a chorus of pleased exclamations from the throng around them.

"Look—the air-dancers!"

The entertainment arranged for the ball was beginning. The first number was to be by the famous Venusian air-dancers. A forty-foot steel disc had been placed on the floor at the center of the ballroom, and another disc of exactly similar size was suspended over the floor one, in the ceiling. A blue-white spotlight played upon the space between the two discs. Out toward them ran a troop of slim white Venusian girls clad in tight-fitting tunics of steel scales.

The girls dived into the air above the floor disc—and floated there! The two great discs were enormously powerful electromagnets, whose pull was so balanced that each disc attracted the girls in their steel tunics with such force that for all practical purposes, gravity was neutralized between them. Stanton watched the floating girls as they began their famous air-dance. Moving by means of swimming motions of their arms, to which light little wings were attached, the shining-clad girls began to weave and dive and dart in a three-dimensional choreographic pattern infinitely more complex and beautiful than the old fashioned two-dimensional stage ballets.

To the lilt of the haunting Venusian music, they moved faster and faster, until at last the shining air-dancers seemed swirling in a blinding pattern that the eye could not follow. For a minute they whirled thus in the blue beam of light. Then the music ended with a crash, they dived to the lower disc, and ran off amid a roar of applause.

STANTON heard Sessue Gurn muttering uneasily in his ear.

"The President is to make his entrance as soon as the entertainment's over. He's still in conference with a few of the congress leaders. I hope he can do something."

Stanton nodded thoughtfully, then turned to watch the next act in the entertainment. It was a troupe of performing animals from all over the Solar System, cleverly trained by a fat, jovial Uranian who now exhibited them. A big uniped from Io gave an exhibition of its marvelous hopping abilities, bouncing straight up and down on its one leg until at last its flat head was touching the lofty ceiling. A "chameleon beast" from Jupiter changed its color and shape instantly at each command from the Uranian showman. Now it was a bright green sphere, now a red cube, now a yellow cylinder. It finally ran through a dozen different shapes and colors faster than the eye could follow.

The last number of the entertainment was a Plutonian mind-reader. There was a stir of anticipation from the throng as a tall, deathly-white, hollow-eyed individual strode out to the center of the crowd. Plutonians had developed telepathy more fully than any other planetary people, and their powers

were a source of never-ending interest to the rest of the System's peoples. The Plutonian stood stock-still, faced a Venusian official, fixing his eyes. Then he began to speak.

"Duun Nuro is your name" the telepath said in his hollow voice. "You are under-secretary of the North Venus department. At this moment you are wondering how I read your mind, and if I will tell about your adventure with the Martian girl last—"

"That's enough!" yelled the flabbergasted Venusian victim fearfully.

**A** SHOUT of laughter went up from the crowd, and the Plutonian calmly fixed his eyes on another person. He read mind after mind accurately, until each subject begged him to stop.

"Berk Ellerman is your name and you are Minister of Justice," the Plutonian said as his eyes fixed the young Justice Minister. "At this moment you are worried and suspicious of—"

Ellerman flung up his hand sharply, and the Plutonian desisted. His eyes shifted to Stanton-Klain's face.

Stanton, as he met those hollow orbs, saw a look of strange, bewildered puzzlement come into the Plutonian's face.

"I do not understand you," the mind-reader muttered hesitantly. "Something strange about you—an alien mind with an inheritance of outlaw-instincts, that should not be—"

"That's enough for me," Stanton said quickly. He was smiling, but he felt cold beneath the smile.

The Plutonian still seemed baffled, staring at him. Then the mind-reader slowly turned his attention to other subjects. When the telepath had finished his exhibition and the lights came up again, Stanton found Arline looking at him wonderingly. But at that moment came a brassy peal of Venusian horns, followed by the loud voice of the major-domo.

"The President!"

The orchestra struck up the planetary anthem, *Clouds of Venus*. All eyes turned toward a door at the top of a short staircase, which had just opened. President Lorrow emerged from that door, followed by a few officials. The president's fine face looked haggard and worn beneath the perfunctory smile he had assumed. Then, as he started down the stair, there was a muffled detonation. Before the eyes of the horrified throng, Lorrow vanished. He was gone as though he had never been. And there remained on the stair where he had stood nothing but gruesome tiny shreds of flesh and cloth!

Stanton heard the hoarse cry of Sessue Gurn break the awful silence.

"President Lorrow has been murdered by the Friends!"

## CHAPTER VIII

### *Citadel of Fear*

**S**TANTON felt stunned and sick as he looked at the bloody shreds that had

been the President of Venus. Simultaneously, there was a wild uproar of horrified cries from the people in the ballroom. The throng was now in utter confusion—the murder of the President had crystallized the cloudy dread which had overhung the crowd all evening.

"No one is to leave here yet!" Berk Ellerman shouted. "Close the doors!"

Than Natal, the Foreign Minister, pressed near. Arline Cray, her face deathly white, was clinging to Stanton.

"Klain, the murder of Lorrow ends all hope of getting the congress to vote against annexation!" Natal exclaimed grimly. "Not one of them will now dare to vote against the Friends' wishes."

"I know," Stanton said tightly. "That must be why the Friends killed Lorrow here—as an object lesson and warning to the others."

"We'd better guard you every minute, Gurn," Berk Ellerman was telling the stout, spectacled Vice-President. "Remember, you're President of Venus now that Lorrow is dead."

Sessue Gurn started violently, his eyes dilating behind his thick spectacles.

"Me, President? My God, I hadn't thought of that! What am I going to do? I don't know the government as Lorrow did. Than Natal here would be better as President than me."

Stanton could see that Burn was a little panicky, that he would be only too glad now to relinquish the perilous office that had become his.

"The law says you have to take the office, Sessue," Than Natal said quickly. "But I can advise you constantly as to what course to follow."

"All right, I'll—I'll try to do my job," the stout Venusian said hesitantly, "if you'll stay close to tell me what to do, Than Natal."

Stanton was watching Than Natal closely. The suave Foreign Minister had been quick to seize advantage of the situation by getting control over the helpless Sessue Gurn. And, Stanton knew, if anything happened to Gurn, the Presidency would pass at once to the Foreign Minister.

Arline Cray moved forward and plucked at Stanton's arm, her white face looking up appealingly at him.

"Can't we leave now, Kendall?" she whispered. "This horrible thing—it's made me feel faint—"

Stanton understood. It was time for them to report to the Chief at the Citadel.

The Foreign Minister turned and addressed the pale, horrified throng in the ballroom.

"The President is dead and Sessue Gurn is now president," he stated. "Every effort will be made to apprehend the perpetrators of this ghastly crime. You need remain no longer."

As the crowd started breaking up and leaving, Sessue Gurn looked after them with despair in his spectacled eyes.

"They're completely terrorized now," he said hopelessly. "There won't be a single vote against annexation when congress meets tomorrow."

"Don't worry about that, Sessu—leave it to me," Than Natal reassured the stout man. "I'll do the best I can."

It was evident to Stanton, as he and Arline left, that Than Natal was already in command of the situation.

**N**CE outside in the heavy, humid darkness, the Venusian girl seemed to experience a momentary unsteadiness.

"That horrible murder of the President!" she whispered. "Ghastly—"

"It's no more ghastly than the dozen other murders that we Friends have committed lately," Stanton told her.

He was hoping that she might say something that would give away the mysterious method of murder used. But the reaction of Arline Cray astonished him.

Her hand went to her throat.

"You mean that the Friends have murdered others like that?" she gasped.

Stanton stared at her with narrowed eyes. "Surely you know that a dozen members of the government have been killed in the same way in the last two weeks."

Arline's face was pale, aghast.

"No, I didn't know—how could I? I've been at the Citadel for over two weeks."

Stanton was bewildered. The girl seemed sincerely horrified by news of the murders. Yet she was one of the Friends. Was she trying to trap him into some kind of admission? He knew that she had caught his early blunders in playing the part of Kendall Klain. He decided that he must play safe.

"Well, there's nothing we Friends can do but obey the Chief's orders," he told her. "We'll see what's up at the Citadel." Arline made no answer.

Their rocket-car had reached Kendall Klain's home. They got out, and the girl led the way toward the parked rocket-flier nearby. But when they entered the torpedo-like little craft, a sudden new perplexity faced Stanton. Arline was waiting for him to take the controls and start—but he dared not. He didn't know the way to the mysterious Citadel!

"You take the controls, Arline," he told her. "I hurt my arm today and it's getting worse."

The excuse was a very lame one, Stanton felt. Once again a look of surprise and queer suspicion came into the girl's dark eyes. But she seated herself in the control-chair, and started the cyclotrons humming. Then, as her slim fingers touched the firing-keys, the rocket-flier shot up sharply into the night.

Soon they were beyond the city, flying inland over the great, dark collective farms and the lights of scattered villages. The great swamps lay ahead, vast and almost impenetrable morasses that blanket the interior of every Venusian continent, and that have defied human settlement since the first Earth colonists came long ago to Venus. Only the scaled swamp-men native to this world lived in those sinister marshes. But, to Stanton's amazement, Arline kept the flier headed on westward above the limitless morass. The Citadel of the Chief, then, was somewhere out here in the great swamps? For almost an hour they flew westward.

Arline constantly consulted the compass and distance-log. Then, peering ahead into the darkness, she abruptly sent the flier slanting steeply downward.

Dim black swamp-trees, like grotesque towering monsters, rose around their descending craft. The flier whipped past leathery foliage and snaky vines, and came to rest with a bumping jar on soft, mucky ground.

"Here we are," Arline said wearily as she cut the cyclotrons and rose from the control-chair.

"You're a good flier, Arline," Stanton told her, sincerely enough.

She looked at him coldly. "You can keep your compliments, Kendall Klain. I don't want them."

She had picked up a flash-lamp and as they emerged from the flier, she turned on its bright blue ray.

**G**REAT swamp-trees with flat crowns of stiff, queer foliage loomed darkly from the surrounding marsh. Hordes of vicious night-flies settled on them, and little ten-legged mud-snakes scuttled hastily away from the light.

Arline Cray led the way with the flash-lamp, her dainty white slippers sinking deep into the muck. The rank breath of decaying vegetation, the evil exhalation of the swamp, were overpowering in Stanton's nostrils as he followed. For a moment, he felt a keen nostalgia for the clean air of Earth. A huge black structure was ahead of them now. It was a mountainous bulk that showed no ray of light—a great hexagonal fortress of black cement surrounded by a crumbling wall.

"An ancient fortress!" Stanton muttered to himself.

He had recognized this Citadel as one of the forts built centuries ago by the first colonists of Venus, to hold in check the hordes of hostile swamp-men who had then been a peril. The forts in the swamps had long been abandoned and forgotten. But the leader of the Friends of Venus had apparently made use of one for his hidden headquarters.

They passed through the gate of the crumbling wall and approached a solid, corroded metal door in the wall of the towering black fortress. Arline knocked four times. A heavy bar was lifted raspily inside, and the door swung inward. Inside stood a pale, haggard-looking young Venusian. One of the dreaded Friends!

"The Chief is waiting for you," he told them.

"We'd better hurry," Arline said nervously, leading the way down the long gallery.

Stanton followed her through gloomy corridors illuminated by infrequent xenon-bulbs. Dust lay thick everywhere, and the whole interior of the ancient fortress had a musty smell of death and decay. They climbed upward by a winding cement stair and presently came to a door guarded by two armed men. One of these spoke into a tube beside the door.

"Kendall Klain and the Cray girl," the guard reported.

"Let them enter," answered a hollow, dead-accented voice from the tube, and a mechanical lock clicked inside.

Stanton's heart pounded. He recognized that hollow voice as the Chief's. At last he was to face the man who was conducting the reign of terror that was driving Venus toward conquest.

The secret agent gripped the kappa-pistol inside his jacket pocket as the door swung open. Then he followed the girl into the sanctum of the Chief. It was a small, windowless hexagonal chamber blazing with light. A complicated array of scientific instruments stood about the walls. Most arresting of the mechanisms was a tall machine which bore on its front a bank of scores of numbered keys, like the firing-keys of a rocket ship. The room had two occupants. One of them was the Venusian, Sliih Drin, the proprietor of the Dream Palace.

The other occupant was—the Chief. But what the dreaded leader's face and figure were like, Stanton could not see. For the Chief wore a cowl and long robe of clinging metal-mesh that hid him completely. Even the arms of the robe ended in metal-mesh gloves. And the cowl's only openings were two small eye-holes. Standing immobile, the cowled metal figure spoke directly to Stanton in the hollow, muffled voice.

"You were at the ball when Lorrow was killed, Klain? What was the reaction of the congress?"

Stanton told the truth. "They were panic-stricken."

**T**HE Chief chuckled hollowly.

"Then there won't be ten votes against annexation, tomorrow. Tell me, did I time the killing right—did I kill Lorrow just before he made his entrance?"

Stanton felt bewildered by the question. If the Chief had killed Lorrow himself, didn't he know all the circumstances of the murder?

But he answered the cowled metal-clad figure.

"You timed it perfectly."

"That's good," said the Chief. Again came the hollow, triumphant laugh. "They'll still be wondering how these killings are done—the weird mystery about them makes them doubly effective."

He ran his metal-gloved hand lightly across the bank of numbered keys on the tall machine beside him.

"A key pressed here, and a man in Venusopolis dies, no matter where he may be or what he is doing," exulted the Chief. "Murder by remote control!"

"And I've helped make that possible, sir," Sliih Drin said fawningly.

The Chief turned toward the dream-house proprietor.

"I'm not forgetting your help, Sliih Drin," he boomed. "Without you to plant the explosive capsules in the bodies of the victims, I could not have succeeded."

Clark Stanton's mind rocked as he suddenly grasped the hideous method used in accomplishing these weird murders. An explosive capsule—surgically implanted in the bodies of selected victims by Sliih Drin,

while they were in the unconsciousness of the dream-sleep. And that capsule exploded by remote radio control of some kind, by the Chief here! Murder by remote control, indeed! The victims would never dream they carried the death-capsule in their flesh until it exploded and blew their bodies to fragments!

## CHAPTER IX

### *Scientist's Secret*

**T**HE Earth S.S. man felt a wild, overmastering anger as he at last comprehended the hideous murder-method employed by the nefarious Chief. The Chief saw the emotion that shook Stanton's borrowed body, and misunderstood it. The cowled figure laughed.

"You're nervous, Klain? Because I've got my hand on these keys? You needn't be—I won't press *your* key, unless you get disobedient."

For the moment, Stanton did not understand. But the next taunting words of the Chief made everything terribly clear.

"You of the Friends had better never forget that all of you, except Sliih Drin and Arline, have death in your bodies! Death that I can let loose on you at the first sign of mutiny!"

Stanton understood, now. Not only the selected victims of the Friends, but also all the Friends themselves, had explosive capsules planted in their bodies! Then that was how the Chief maintained his rule over his organization. But why, if they knew that, didn't they have the death-capsules removed? He, Clark Stanton, had such a death-capsule in his body now! For now he owned Kendall Klain's body, not his own. The Chief could blow him to shreds by merely pressing one of the keys!

Stanton suddenly remembered the strange way in which Kendall Klain had smiled when he had learned of the exchange of bodies Stanton meant to make with him. No wonder Klain had smiled!

The Chief addressed the Earthman.

"I sent Arline to bring you here because I wish to make sure that the War Department is ready, Klain," boomed the cowled leader. "As soon as annexation is voted tomorrow, our space-fleet must strike at Mercury like lightning."

The Chief laughed. "Once we hold Mercury, with its vital solar power-stations, the other worlds will hardly dare attack us. For if they do, we can shut off transmission of all their solar power, and cripple their industries immediately."

"The War Department is all ready," Stanton answered quickly. "But I have something here that I'd like you look at."

And Stanton slipped his hand into his jacket-pocket as though about to draw out a paper.

"What is it, Klain?" demanded the cowled leader.

"This!" rasped Stanton, snatching out his kappa-pistol and leveling it at the Chief's breast. "Raise your hands! If you make one move I'll kill you here and now!"



The eyeholes in the Chief's metal cowl started in silence toward Stanton, a silence of utter astonishment.

"Have you gone mad, Klain?" the hollow voice demanded.

Arline Cray and Slih Drin were staring, petrified.

Stanton laughed grimly. His hopes were soaring.

"You can take off that cowl, now, and let me see your murdering face. All Venusopolis is going to see it when we get there—and know that the Friends are smashed. The terror will be lifted and the annexation scheme won't go through tomorrow!"

The Chief abruptly raised his voice in a loud, harsh shout.

"Guards! To me at once!"

"You asked for it—take it!" clipped Stanton, and pulled trigger. The thin, dazzling kappa-beam from the pistol drove straight through the breast of the Chief's metal-mesh robe.

But, to Stanton's amazement, the Chief did not fall. Instead, he laughed.

"You blind fool—to think that you could kill me with your toy!" he derided.

The two guards outside had burst into the chamber. They seized the stunned Stanton's arms before he could turn.

"Why did you try this insane thing, Klain?" the cowed leader demanded as the guards wrested away Stanton's gun. "You've never shown any sign of rebellion before. Have you gone mad?"

Stanton raged.

"You murdering monster, I'm only sorry I failed to rid Earth of you!"

"Rid *Earth* of me?" repeated the Chief, as he heard Stanton's passionate shout. "That's an Earthman's expression, not a Venusian's. Yet I know you're Venusian born and bred, Klain—"

**T**HE cowed figure suddenly stopped, as though struck by a new idea.

"It might be," he muttered in his hollow voice. "They say it's been done more than once—"

With heavy, angular strides, the Chief went to a cabinet and brought back a small X-ray instrument.

"Hold him still—I want to look at his skull through this," the hollow voice ordered the guards.

Stanton struggled crazily, but could not free himself of the metal fetters the two guards had clamped on his limbs. In a moment, the Chief drew back from his examination.

"It's what I suspected!" boomed the hollow voice excitedly. "You're not Kendall Klain! You've got his body, but your own brain has been transplanted into it. Who are you?"

Stanton remained silent.

"You're an Earthman, I know that," muttered the Chief. "You're probably the same Earthman who, with a Jovian, attacked Slih Drin in his Dream Palace. Only there's a Martian in this somewhere," puzzled the cowed leader. "Only Martians have the super-surgical technique to perform this exchange of brains."

"Exchange of brains?" Slih Drin gasped. "You mean that the brains and bodies of the Earthman and Klain were exchanged?"

The Chief explained curtly. The amazement of the dream-house proprietor was matched by that in Arline Cray's face.

"Then that's why you—" she started to say impulsively to Stanton, but fell silent.

"That's why he what?" demanded the Chief. "You noticed something strange about him?"

Arline nodded slowly.

"He seemed not to know where the Citadel was, and to be ignorant of other things," she said, staring at Stanton-Klain with wide, dark eyes.

Stanton smiled weakly.

"I was afraid I was bungling the part a little."

Inwardly, Stanton felt black despair, and a baffling bewilderment. How could his kappa-beam have failed to kill this devilish Chief? He had seen the beam drive through his robe.

"Where is Kendall Klain's brain now?" the Chief demanded of Stanton. "I know it must be keeping your own body alive somewhere, and with it must be that Jovian and the Martian who made the exchange. But where?"

Stanton remained coolly silent.

"You won't tell, eh? Well, we have means here of making people talk," the cowed leader said ominously.

"Torture?" said Stanton contemptuously. "It won't work with me."

"Our tortures are mental, not physical," said the Chief. Then the leader ordered, "Bring a dream-machine and records over here, Slih Drin."

Slih Drin obeyed, with a smirking smile. A word from the Chief, and Stanton was flung down and pinioned to a table. The wires of the dream-machine were plugged into the electrodes in Stanton-Klain's skull. Slih Drin put one of the dream-spools into the machine, and started it. Stanton felt the black dream-sleep sweep over his brain. He sank into darkness. Then rapidly he came back to a dream-consciousness that seemed utterly real.

He was lying in the bottom of an enormous, dark chasm on an alien world. His legs had been broken by a terrific fall. He could crawl, but not walk. Now he felt an awful throb of fear as slithering, rustling shapes stole through the shadows toward him.

Man-spiders! He was on Uranus! Those horrible arachnids with the near-human heads, most ferocious and fearful of the seventh world's creatures, were coming toward him. He crawled frantically to escape them. But they overtook him. A monstrous pair of glowing, faceted eyes glared down into his as the first of the creatures seized him in hairy limbs. Its beak tore his side open with hellish deliberation.

**W**RITHING in unendurable pain, he felt others of the hairy-legged horrors swarming on him. Flesh was being torn from his living body by a dozen beaks. He was in terrible agony—

Stanton awoke! Sweat was dripping on

his forehead as the dream suddenly ended and he found himself lying on the table with the cowed Chief and Slih Drin bending over him.

"Are you ready to tell now where the Jovian and Martian are with Klain's brain?" the Chief demanded.

"No, damn you!" Stanton said hoarsely. "Another spool, Slih Drin," ordered the Chief. "Break him down."

The dream-machine started—and Stanton was plunged back again into the darkness of the dream-sleep. This time he awoke to find himself staggering through a terrific frozen-air blizzard on icy Pluto. He was dying on his feet of cold and starvation. The oxygen inside his suit was running out, and his lungs were a gasping pain. The hopelessness of his situation crushed his spirits. He fell, got up and struggled on again, then fell once more and lay freezing, dying—

Abruptly, the dream changed. He was in a space-liner that had been wrecked by a meteor and was falling into the sun. The heat inside it was already terrific. He was gasping for breath, people were falling and dying around him. The seams of the liner were beginning to give way as it rushed toward doom. The metal floor seared his flesh, his blood was boiling in his veins—

Dream after torturing dream Stanton experienced, each one seeming utterly real, each one compressing a lifetime of agony and horror into a few minutes. After each dream, he awoke to find the Chief demanding that he tell his secret, yet after each timeless period of torture Stanton gasped a hoarse refusal. At last, Stanton awoke to find the Chief's cowed head looking down at him, baffled. Slih Drin was cursing.

"I've put on the worst dreams I had, and he hasn't broken," the effeminate Venusian told the leader.

"Then there's only one thing we can do, Slih Drin," rasped the Chief's hollow voice. "We need Klain in the War Ministry, so you go back to Venusopolis and make an intensive search for that Jovian and Martian who have Klain's brain in this man's body. Bring them all back here. We've got to make that Martian transfer Klain's brain back into his own body. Do you think you can find them quickly?"

"I think so," Slih Drin said quickly. "I have an idea where they might be hiding."

The effeminate Venusian hurried out, and the Chief turned to the guards.

"Put this prisoner in the dungeon with the other, until Slih Drin returns," he ordered.

Fettered, still shaken by the horrible dream-torture, Stanton was dragged out of the chamber by the two guards and then dragged down flights of dusky cement stairs to the underground levels of the ancient fortress.

The guards stopped with him before a door with a lock of heavy design. One opened the door—the other guard tossed Stanton bodily through it. As he hit the floor, the door slammed and was relocked.

**S**TANTON, still fettered, got to his knees. His eyes tried to penetrate the dusky obscurity of the damp cell. It was window-

less, with dripping cement walls patched by livid green mold.

Suddenly he heard slow, shuffling movements. Something was approaching him from a far corner of the cell!

Stanton raised his fettered hands to defend himself. Then he saw that it was a man who was advancing. The man was a middle-aged Venusian with gray hair and an unshaven, haggard face.

"A fellow prisoner, eh?" muttered Stanton. "Who are you?"

"Kendall Klain!" gasped the Venusian prisoner as he recognized Stanton-Klain's face. "Surely you remember me, Klain?"

"Unfortunately, I'm not Klain at all," Stanton declared grimly. "I never saw you before."

"I don't understand," the middle-aged Venusian faltered. "You used to know me well. I'm Wilson Cray."

Stanton's eyes narrowed. "Wilson Cray, the Venusian scientist who disappeared six months ago? Arline's father?"

"Yes, of course!" exclaimed the other. "But what do you mean by saying that you're not Klain?"

Stanton explained rapidly. Wilson Cray uttered an incredulous exclamation when he had heard.

"You, an Earthman's brain in Klain's body? I've heard of that legendary Martian surgical feat, but I never thought it could really be done."

"It's been done to me, and it'll be undone if they can get the real Klain's brain back," Stanton declared. "But what are you doing here as a prisoner, Cray? Why should the Chief imprison you when Arline is one of his agents?"

"That's the reason why Arline is the fiend's agent—because I'm a prisoner!" Wilson Cray said bitterly. "The Chief has told her that unless she obeys, my death will result."

"I thought she wasn't the kind of girl to be mixed up in a murder-mess like this!" Stanton exclaimed impulsively. "No wonder she was horrified to learn of all those murders."

"If Arline had known those murders were going on, she'd have tried to stop it even though it meant my death," Cray declared. "But she didn't know. I didn't know myself what horrible results my work has had, until you told me."

"Your work?" Stanton cried. "You mean that the method of remote-control murder is your invention?"

"Yes, mine," Wilson Cray said haggardly. "It was stolen from me by the Chief."

"Who is the Chief, Cray?" Stanton asked tensely.

"I don't know," answered the Venusian scientist dully. "I feel sure, though, that he is someone high in the Venusian government who is pushing the Mercury-annexation scheme so that he can dominate the whole system through control of the solar power."

"I was certain that the Chief was one of the cabinet ministers," Stanton said. "But they were all at the ball when Lorrow was

killed—and the Chief had to be here, pressing the death-key, to kill Lorrow. I can't understand it."

"Let me try to get those fetters off you," Wilson Cray murmured. "Then I'll tell you what I know."

The fetters were temporary ones, and it did not take the Venusian long to free Stanton. Then, squatting beside him on the damp cement floor, he spoke in a low voice.

"I'm a scientist, as you must know," Wilson Cray said, "and my specialty for years has been the use of electro-magnetic waves such as radio waves for purposes of remote control. I studied it deeply, and learned how to control the most intricate machines from a distance, how to detonate explosives from a distance.

"I made a report of some of my successes at a meeting of a Venusian scientific society. Someone who heard of that determined to use my knowledge for his own purposes. Two nights after I made that report, I was drugged and abducted from my home. I awoke, a prisoner in this old swamp-fortress. A masked man was my captor—one who called himself the Chief. He told me that if I yielded him every one of my secrets of remote control, he would let me go. Like a fool, I believed him and told him all my secrets. Of course, he held me prisoner.

"He used my secrets to form a horrible secret society of dread. He sought out Slih Drin, proprietor of the biggest dream-house on Venus, and enlisted his support. He gave Slih Drin a supply of explosive capsules made from my secrets, and Slih Drin inserted these by a simple, tiny incision into the bodies of certain selected victims while they lay in the dream-sleep. The capsules were inserted near the heart, and modern anaesthetics and therapeutics made the victims unaware of the process when they awoke.

**"EVERYONE**, high and low, patronizes the dream-houses these days. Slih Drin's Dream Palace, the biggest and best, drew the most important people on Venus. In time, Slih Drin had planted the death-capsules in all the people the Chief had indicated. Then the Chief was ready for action. He had destined some of those people to be his tools, his followers in the Friends of Venus. At first, they refused. But when the Chief slew a few of them, by exploding the capsules in their bodies, the others realized they had to obey and so they have done the Chief's bidding ever since."

"Why didn't they have the death-capsules removed from their bodies? Then they could defy the Chief!" Stanton exclaimed.

Wilson Cray shook his head.

"The capsules are devised so that attempt to remove them automatically explodes them. Slih Drin has no capsule in him, of course—he's bound to the Chief by ambition. Nor has Arline, for the Chief forced her to do his bidding by threatening to kill me. All the rest of the Friends have death inside them. So do scores of other important officials, who don't suspect the death inside them. The Chief can kill any of them he wishes, any time."

"He's killed enough of them now to frighten the congress into voting the annexation!" Clark Stanton declared. "And that takes place tomorrow. We've got to stop it—*to escape from here.*"

Again the Venusian shook his head sadly. "There is no escape from this dungeon. I know."

## CHAPTER X

### *Metamorphosis Reversed*

**S**TANTON felt a surge of black discouragement. If Wilson Cray, brilliant scientist, had been in this dungeon for months without finding a way to escape, how could he hope to do so? But he wouldn't give up—he couldn't give up now. He had been in tight places before and had found a way out. There was always a way out, if a man had persistence and courage.

The Earthman got up and examined the door. It was of solid metal, tightly secured by the strong lock.

"If a man had a little atomic drill, he could drill through into the lock and release it," Stanton observed.

"Yes, *if*," echoed Wilson Cray hopelessly. "We've no drill and nothing to make one of."

Stanton felt through his pockets. They were empty. The guards had not neglected to take everything from them. He sat down again. It looked as though there was no use fevering his mind with futile ideas of escape. But he couldn't give up. Sitting there in the dusky cell, his fingers moving nervously, he racked his brain for an idea. What would Black Stanton have done to escape?

He was twisting the buttons of his jacket in his fingers. And that was what finally brought him the inspiration. One of those buttons was much larger than the others! Suddenly remembering something, Stanton snatched off the button and examined it. It was a compact, tiny audio receiver and transmitter. He remembered that Kendall Klain had worn such a button-audio on his jacket, for communication with the Chief. Apparently Klain had one on the jacket of this silk evening suit Stanton now wore.

"Look at this!" he cried to Wilson Cray. "Can we call Venusopolis for help on this?" Cray shook his head.

"No, this is designed to use on only one secret wave-length, that used for communication by the Chief."

But Wilson Cray continued excitedly. "Earthman, that gadget, may save us," he said hoarsely. "There's a chance that we can make a little drill out of it."

"An atomic drill—out of that?" Stanton said incredulously.

Cray nodded tensely. "There's a tiny atomic power-unit in it, to power the transmitter. I might be able to do it—I don't know—"

Using a nail from his sandals as a tiny tool, Cray attacked the little mechanism. Stanton was still incredulous. Yet this man was one of the greatest scientists and inventors on Venus.

Cray worked feverishly. Stanton could not see what the old man was doing; the

parts he handled were so tiny. Minutes dragged by, became hours. Finally Cray straightened, his brow dripping.

"I've made a tiny drill," he announced. "Tipped it with an iridalloy bit of the mechanism. Now if it will cut through the door—"

He scrambled to the door, and began tapping the inside of the lock, listening intently. Finally, he stiffened.

"This ought to do it," he muttered. "If it does—"

The little makeshift atomic drill began humming. And the tiny iridalloy point ate smoothly into the metal door. Deeper and deeper it bit, into the lock. There came a grinding rasping from inside the lock. The shaft of the makeshift drill suddenly shattered. But at the same moment, the bolt of the door slid jerkily back.

"That got it!" Wilson Cray cried wildly. "Be quiet—and come on," Stanton told the excited Venusian. He opened the door. The dim-lit corridor outside was empty. The two prisoners started hastily along it.

"You head out and steal a rocket-flier and bring help from Venusopolis," Stanton told Cray swiftly.

"But Arline?" cried the Venusian.

"I'm staying here, to make sure the Chief doesn't escape," Stanton retorted. "I'll see that Arline's safe."

**THEY** reached the dusty ground-level of the ancient fortress and there they parted. Wilson Cray started down a corridor leading to the outside. Stanton started up the stair to the sanctum of the Chief. He heard a man coming down the stairs! Stanton crouched back in the shadows of a landing corner. The man, one of the Friends, a pale-faced Venusian, approached unsuspectingly. Stanton jumped out with the speed of a swamp-cat, and his fist smashed home.

The Venusian slumped. Stanton snatched the kappa-pistol from his belt, his heart pounding with exultation.

At that moment he heard a chorus of cries of alarm, from beneath. He looked down and saw Wilson Cray running back out of the corridor into which he had started.

"Stanton, they're coming—they saw me!" Cray cried. "Slih Drin and others—"

Stanton leaped down the stairs. As he did so, several Venusians emerged into the gloomy black hall in pursuit of Cray. Slih Drin was foremost, his pistol raised. And the Friends behind him dragged with them two bound prisoners—a big Jovian and a bald, red Martian. Others carried a third limp form.

"Bemo and Nim Narth!" yelled Stanton, realizing that his friends had been found and captured in the city.

"The prisoners are escaping!" shouted Slih Drin at the top of his voice as he fired his beam at Wilson Cray.

Stanton shoved Cray to the floor, out of the path of the beam. Simultaneously, Stanton shot point-blank at Slih Drin. The kappa-beam caught the effeminate dream-house proprietor over the heart. It burned a tiny hole in his elegant silk tunic, and he fell, his face livid in death.

"Look out, Stanton!" warned Cray in a hoarse shout from the floor.

Before Stanton could turn, men piled on him from behind. Friends from above, drawn by Slih Drin's cry of alarm. Stanton went down without opportunity to use his pistol again. It was torn from his fingers. New metal fetters were twisted around his wrists and ankles as he struggled fiercely.

Wilson Cray had been similarly secured. They were hauled to the side of Bemo Burmer and Nim Narth.

The Jovian bore marks of a desperate fight. Nim Narth was spitting blood from a cracked lip, and had bruises.

"Clark, we've failed you!" rumbled Burmer. "We let them capture us."

"It's not your fault, but mine," Stanton said bitterly. "I've bungled this thing, from first to last—"

He stopped as he saw the third limp, unconscious form the Friends had brought. That black-haired, bronzed-faced man—that was his own body and face! Clark Stanton's body, in which Kendall Klain's brain now lived.

"Yes, they brought your body along too," Narth said gloomily. "They seemed to know all about that."

Their captors hauled them up the stairs. And within a few more minutes, they were dragged into the sanctum of the Chief. Arline Cray was there, standing near the ominous cowed figure of the leader. She ran to her father with a cry.

"So you killed Slih Drin in a futile escape attempt?" the Chief said to Stanton-Klain. His hollow voice throbbed with rage. "Slih Drin, my most valuable man! For that, Earthman, you are going to suffer! I meant to let your brain and body die, after Klain's brain was back in his own body. But now, I'll see that you live again in your own body—so that you can die of slow tortures!"

"It'll be worth it," Stanton crackled. "The memory that I killed that slimy snake Slih Drin will sweeten my death!"

"You'll think differently before I'm through with you," warned the Chief ominously.

**HE** turned to the Friends who had brought the captives. "Where did you find the Jovian and Martian?"

"In one of the floating villas on the sea near Venusopolis," one of the men answered. "Slih Drin figured that they'd pick such a place as their safest hideout. He got a list of all sea-villas supposed to be closed, and we checked them one by one. The fifth was the place—it was easy to surprise them."

"Did you bring all the Martian's scientific instruments along?" the Chief asked.

The man nodded.

"Yes, Slih Drin thought of that."

The cowed leader turned to the owlish Martian who stood beside Stanton-Klain.

"Martian, you performed the exchange of brains between those two men," boomed the Chief. "Now you're going to reverse the operation and re-exchange the brains—or die!"

Suddenly, Stanton was thrilling to a new inspiration. He saw a slender chance of

snatching success out of this peril. Behind his back, he touched Nim Narth's side with his fettered hands. He pressed the Martian's ribs in quick nudges—a message in the universal interplanetary code.

"D-o a-s h-e s-a-y-s," Stanton spelled out swiftly. "W-h-e-n y-o-u h-a-v-e e-x-c-h-a-n-g-e-d t-h-e b-r-a-i-n-s, t-h-e-n—"

Nim Narth showed no trace of awareness, as Stanton spelled out the rest of his desperate instructions. The Martian looked at the Chief shrewdly.

"You'll spare my life if I do this for you?" he asked in a haggling tone.

"I'll kill you at once if you don't do it!" boomed the cowed leader. "What is your answer?"

Narth sighed. "All right, I guess I'll have to do it."

"If anything goes wrong, you'll regret it," warned the Chief. "Go ahead. There are your instruments."

Two guards flung Stanton down on an operating table.

Narth looked blinkingly around. "I'll need sleep-gas—a lot of it," he complained.

"Bring a tank," boomed the Chief to one of the Venusians.

The man returned hastily with a cylindrical metal tank of the sleep-gas. Narth attached a tube to its top, then turned the valve to let a little of the gas escape. He held the end of the tube to Stanton's nostrils. As he inhaled the pungent gas, Stanton saw the veiled look of reassurance in the Martian's eyes. Nim Narth would perform his part!

Then the gas took hold of Stanton's mind, and he sank into a rayless darkness. He awoke slowly, with the same splitting headache as before. Nim Narth, looking very tired, was laying aside his instruments. The Chief, the Friends, and Wilson Cray and his daughter, were staring in a rigid amazement.

"I could use a man like you, Martian," the Chief said with respect in his hollow voice. "Perhaps I won't have you killed after all."

Stanton looked down at himself. He was in his own familiar Earthman's body again! And on the other table, Kendall Klain, once again in his own body, was waking and looking dazedly around. Then Stanton became aware that he had trouble breathing through his nose. It was stuffed with chemical-smelling cotton. Narth had surreptitiously put it into his nostrils during the operation. And now the Martian carried out the rest of Stanton's desperate plan. Bending as though to pick up a dropped instrument, Narth suddenly opened wide the valve of the sleep-gas tank.

The pungent gas, stored under tremendous pressure, rushed out of the tank with a loud *whoosh*. It filled the little chamber instantly with a cloud of anaesthetic vapor. Nim Narth fell senseless, instantly overcome. The Venusians who stood guard over Wilson and Arline Cray and Burmer fell at the same moment, trying to level their weapons. And the others also slumped down unconscious.

But Stanton leaped up from the table. The chemicalized cotton in his nostrils protected

him partially from the overpowering gas. He spun around toward the Chief. To his amazement, the cowed leader had not been overcome by the gas!

"So! A trick!" boomed the hollow voice. The cowed figure was rigid with rage and amazement.

Stanton dived at the other. And the Earthman felt himself gripped by arms of strength that was superhuman. Possessed of that colossal strength, immune to kappa-beams and to the sleep-gas alike—the Chief could not be human!

## CHAPTER XI

### *Mystery's End*

CLARK STANTON wrenched himself out of that superhuman grip by a desperate surge of strength. As he did so, his fettered hands caught and tore away the clinging cowl and robe of metal-mesh fabric which disguised the Chief.

The Chief stood revealed to Stanton's eyes. The Earthman staggered, stunned.

"My God, you're a robot!" Stanton exclaimed.

"Not a robot," boomed the creature's hollow voice. "A proxy!"

The Chief was a man-shaped figure of metal, head, trunk, arms and legs all metal. His eyes were two lenses. His mouth was a resonator from which came that hollow voice.

Thick insulated wires ran down along his neck into the mechanism inside his body. He made a grotesque, unbelievable figure as he advanced with great metal arms reaching. This was why no kappa-beams nor sleep-gas could harm the creature. For this, Stanton knew, was not the real Chief at all, but a mechanical proxy controlled from a distance by the man who was the real Chief!

The moment in which Stanton stood dazed by the disclosure was a mistake. It gave the metal creature time to reach him. Again the great metal arms grasped him, and this time the left hand rose to seize his throat.

"I am killing you from hundreds of miles away, Stanton," chuckled the hollow voice from the resonator. "You, and then your friends—"

Stanton's world was darkening as the metal hand remorselessly squeezed his throat. He could not escape that mechanical grip. He took the last chance open to him. With his fettered hands, he reached up wildly and grasped the insulated wires outside the mechanical proxy's neck. The proxy understood the maneuver, and instantly raised its other hand to prevent Stanton's action. But the Earthman, with fading strength, tore the wires loose. And the metal creature that gripped him suddenly stiffened, swayed, and fell clashing to the floor. Control of it by its distant master had been broken!

Stanton stood up, panting wildly, looking down at the thing. He bent and examined the lenslike glass eyes of the lifeless mechanical thing.

"As I thought," he muttered. "Now I

know the identity of the Chief!"

He stumbled to the door and opened it, letting the sleep-gas escape from the chamber. Then he secured all the guns.

Soon, the unconscious people in the room began to revive. Stanton went over to the tall machine with the bank of numbered death-keys.

As the Venusian followers of the Chief came back to consciousness and saw Stanton standing there, they started to rush toward him.

"Stand back, or I'll explode all the death-capsules," Stanton told them, raising his hands above the bank of keys.

Appalled, the Friends recoiled. They stared desperately at the keys which meant death or life to them.

"Some of you go down and tell the others of your crowd in this fort that I've got their lives in my hands," Stanton ordered.

Bemo Burmer and Narth were reviving too, as were Arline Cray and her father. Narth uttered an exclamation.

"The ruse worked, then, Clark?" the Martian cried excitedly. "But the Chief—"

Stanton nodded toward the motionless metal thing on the floor.

"There he is—or rather, there's his proxy."

He explained his discovery, as the others stared in astonishment at the mechanical creature.

Wilson Cray seemed stunned.

"Then the real Chief has never been here at all—he has operated this proxy by remote control from Venusopolis?" he asked.

STANTON nodded. "And the real Chief is still in Venusopolis. I know who he is—and he'll be at the session of the congress when it meets."

"But the congress is due to meet now!" cried Bemo Burmer, pointing to a clock on the wall. "It's morning now, Clark! The hour for the session to begin!"

Stanton paled. "Then we've got to get there before the annexation is voted! For as soon as the vote goes through, the Venusian space-fleet will sail for Mercury."

He whirled to Wilson Cray.

"Cray, you stay here and stand over these keys. If Klain and these other Friends try anything, press all the keys."

"We won't try anything," Kendall Klain said hoarsely. "All of us were forced to obey the Chief because of the death-capsules in our bodies, but we've only hate for him, whoever he is."

"I can devise a way to take the capsules out of you men without detonating them," Wilson Cray promised.

Haggard hope shone in the faces of Kendall Klain and the other Friends at the promise.

Stanton was hastening out of the hexagonal chamber with big Bemo Burmer and the Martian. He found Arline Cray running at his side down the stairs.

"I'm going with you!" she cried as he tried to protest. "I can be a witness to the truth of your story if the congress doesn't believe it."

He let her come, recognizing the force of

her suggestion. They burst out of the ancient fortress. Full daylight greeted them. The vast, rank green morass around the Citadel steamed with rising mists that made its tangle vague and unreal. They reached the rocket-fliers, and in a few moments were rising from the swamp in one of the craft. Stanton held the controls, and he sent the torpedolike little ship whizzing eastward over the vast swamp at an almost suicidal speed.

It seemed eternities, though it was really less than an hour, before the swamp gave way to the belt of solid, cultivated land. Far ahead showed the blue rim of the sea, and against it rose the white and pink structures of Venusopolis. Straight toward the soaring tower of the capitol building Stanton steered. They swooped down into Government Square and a moment later were climbing out of the craft.

Stanton was already plunging through the doors with Arline and Narth, while Burmer explained their mission to the guards.

Great silver double doors faced them at the end of the passage. Stanton pushed, and the doors burst clangingly inward. Inside was the Congress Chamber—a bowl-shaped room with curving rows of seats that held over two hundred Venusian representatives. On the dais at the farther end of the room stood the three members of the cabinet present—Sessue Gurn, a worried look on his spectacled, ruddy face, Than Natal, who had been whispering something to Gurn, and young Berk Ellerman.

"So that all is now ready for the vote on this question—" Sessue Gurn had started to say, when Stanton and his two companions crashed in.

Gurn stopped startledly, his eyes and those of all in the hall turning toward the three dishevelled figures.

"What in the world—" Gurn began amazedly.

Clark Stanton ran forward, then turned and shouted to the members who had risen from their seats.

"Congress-members of Venus, listen to me!" he cried. "You are only preparing to vote for the annexation of Mercury because you are in terror of the murderous Friends of Venus. But the Friends are smashed—and their leader, their Chief, is standing there on the dais before you!"

THAN NATAL sprang forward, his face passionate with indignation.

"Who is this Earthman who dares break in on our session?" cried the Foreign Minister. "Call the guards!"

"Berk Ellerman!" Arline cried to the Justice Minister. "You know me! I tell you that this Earthman is speaking the truth—he and his comrades have smashed the Friends!"

The Venusian girl's assertion struck the shouting crowd to silence. They stared wildly, hopefully, at Stanton.

"I don't understand this!" fat Sessue Gurn was gasping bewilderedly to Stanton. "You say that the leader of the Friends is on this dais. You can't mean that Than Natal—"

"No, Gurn," said Stanton softly. "I don't

mean Than Natal. I mean the man who is left-handed, and whose proxy was therefore also left-handed, the man who—"

But it was enough. Sessue Gurn, his ruddy face suddenly distorting hideously, brought a hand out of his jacket-pocket with a kappa-pistol in it. The beam drove like a lance of light toward Clark Stanton. But the Earthman, expecting the movement, had dived in under the ray and tackled the stout Venusian. They rolled on the dais, struggling for the kappa-pistol, as all others in the hall stood too astounded to move. Before any could recover from their astonishment and act, it was over.

A beam flashed between the two struggling men as the trigger was pressed. And Sessue Gurn slumped back, a scorched burn below his heart where his own kappa-beam had driven through him. He looked up with strangely fading eyes at Clark Stanton as the Earthman, panting and shaken, bent over him.

"Clever of you, Stanton, to notice that I was left-handed and that the proxy was too," he gasped. "And you guessed my spectacles—"

"Yes," Stanton nodded somberly. "I guessed that your spectacles, which looked like ordinary bifocal lenses, actually had one lens which saw through the proxy's eyes."

He lifted the thick, queer spectacles from the dying man's eyes as he spoke. And all saw that from the metal bows of the spectacles, hidden, flesh-colored little wires ran down into the inside of Gurn's jacket.

"The lower lens of those bifocal spectacles," Stanton explained, "are not really lenses at all, but tiny television receiving screens. They are tuned to the tiny television cameras which were the eyes of the proxy. In this manner, whatever the proxy saw was transmitted by television and reproduced in the small lower lens of Sessue Gurn's spectacles. He saw in those lens what the proxy saw."

Stanton reached gently into the dying man's jacket and brought out a small, super-compact receiver and control-wave transmitter, upon which were switches and gnarled knobs. There was also a sensitive microphone pick-up to transmit Gurn's speech to the proxy.

"Yes," gasped Sessue Gurn with something like a mocking grin. "That's how I controlled the proxy—I could even do it when others were around me, without their suspecting."

His fading eyes looked beyond them, as though into vast, vain dreams.

"I would have made Venus supreme over the whole System, once it possessed the Solar Station on Mercury," he murmured. "And I, at the head of Venus, ruling justly and wisely—"

A trailing sigh marked the passing of Sessue Gurn.

STANTON rose and soberly faced the ring of pale, awe-struck faces around him. He explained, in slow, few words.

"You are President of Venus now, sir," he told Than Natal. "And the menace of that murderous secret order is ended. The annexation will not be voted now?"

"We will not even vote upon it, now!" Than Natal exclaimed. "We—the Venusian people—have never wanted to conquer Mercury, and we never will."

A roar of voices from all around told that the members of the congress, freed now from the terror that had driven them, thought the same.

"Then my mission on Venus is finished," Clark Stanton said heavily.

He felt weary, let-down, as he walked back out of the hall with Nim Narth. Somehow, it didn't seem like a triumph to him. It was just another hard job, finally finished.

A slender figure came running out into the corridor after Stanton. It was Arline.

"Stanton!" she cried. "Berk Ellerman is going out at once to the citadel, to bring back my father and the Friends there. Are you coming?"

"No, you go along," Stanton said tiredly. He didn't know why he added, "He's a nice fellow, Ellerman."

Arline looked at him curiously. In her dark eyes, a slow smile dawned.

"Yes, but I don't think I will go with him," she said.

Stanton did not meet her gaze. He looked off down the corridor as he said, "I'll be going back to Earth, now."

"They say Earth is the most beautiful of all the planets," Arline said demurely.

Stanton turned to look at her, now. And there was a deep, queer earnestness in his gaze.

"My father was Black Stanton, the outlaw," he told her half-defiantly. "You didn't know that, did you? But he was—and what is more, I'm not ashamed of it."

"There's no reason why you should be," the girl said quietly. "Black Stanton was an outlaw—but he fought clean. His name is one to be proud of."

Stanton smiled wanly.

"Come on—I'll tell you more about Earth," he said. "I think this job will get me a permanent position there."

Bemo Burmer and Nim Narth watched them walk down the corridor. And the big Jovian shook his head dismally.

"There goes one of the best interplanetary spies that ever I worked with or against," he mourned. "Heading right for marriage and a dull, respectable home-life. It's a pity—a terrible pity."

COMING NEXT MONTH

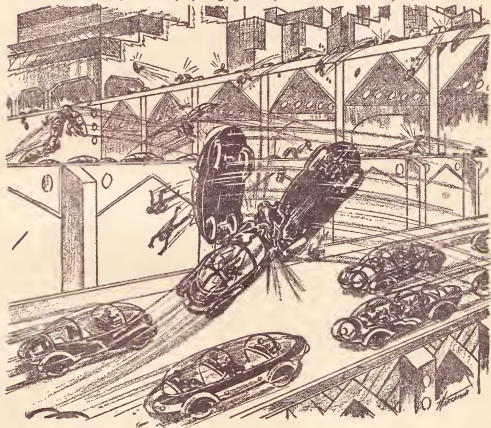
## WORLDS WITHIN WORLDS

A Complete Novel by FREDERIC ARNOLD KUMMER, JR.

# THE GREAT GOD AWTO

By CLARK ASHTON SMITH

*Author of "The City of Singing Flame," "The Eternal World," etc.*



*The sacrifices required by Awto took place at all hours on every street.*

## Professor Saggus Turns Back the Clock and Watches the Wheels of Progress Grind Fine!

*Class-room lecture given by the Most Honorable Erru Saggus, Professor of Hamurriquanean Archaeology at the World-University of Toshtush, on the 365th day of the year 5998.*

**M**ALES, females, androgynes and neuters of the class in archaeology, you have learned, from my previous lectures, all that

is known or inferred concerning the crudely realistic art and literature of the ancient Hamurriquanes. With some difficulty, owing to the fragmentary nature of the extant remains, I have reconstructed for you their bizarre and hideous buildings, their rude mechanisms.

Also, you are now familiar with the unimaginably clumsy, corrupt and in-



efficient legal and economic systems that prevailed among them, together with the garblings of crass superstition and scant knowledge that bore the sacred names of the sciences. You have listened, not without amusement, to my account of their ridiculous amatory and social customs, and have heard with horror the unutterable tale of their addiction to all manner of violent crimes.

Today I shall speak regarding a matter that throws into even grosser relief the low-grade barbarism, the downright savagery, of this bloody and besotted people.

Needless to say, my lecture will concern their well nigh universal cult of human sacrifice and self-immolation to the god Awto: a cult which many of my confreres have tried to associate with the worship of the Heendouan deity, Yokkurnot, or Jukkernot. In this cult, the wild religious fanaticism of the Hamurriquanes, together with the national blood-lust for which they were notorious, found its most congenial and spacious outlet.

If we grant the much-disputed relationship between Awto and Yokkurnudd, it seems plain that the latter god was an extremely mild and refined variation of Awto, worshipped by a gentler and more advanced people. The rites done to Yokkurnudd were localized and occasional while the sacrifices required by Awto took place at all hours on every street and highway.

However, in the face of certain respected authorities, I am inclined to doubt if the two religions had much in common. Certainly nothing apart from the ritual usage of crushing the sacrificial victims under the wheels of ponderous earth-vehicles, such as you have seen in our museums among the exhumed relics of antiquity.

It is my fond hope that I shall eventually find evidence to confirm this doubt, and thus vindicate the Heendouans of the blackest charge that legend and archaeology have brought against them. I shall have made a worthy contribution to science if I can show that they were among the few ancient peoples who were never tainted by the diabolic cult of

Awto originating in Hamurriqua.

Because of a religion so barbarous, it has sometimes been argued that the Hamurriquanean culture—if one can term it such—must have flourished at an earlier period in man's development than the Heendouan. However, in dealing with a realm of research that borders upon prehistory, such relative chronology can be left to theorists.

Excepting, of course, in our own superior modern civilization, human progress has been slow and uncertain, with many intercalated Dark Ages, many reversions to partial or total savagery. I believe that the Hamurriquanean epoch, whether prior to that of the Heendouans or contemporary with it, can well be classified as one of these Dark Ages.

**T**O return to my main theme, the cult of Awto. It is doubtless well known to you that in recent years certain irresponsible so-called archaeologists, misled by a desire to create sensation at the cost of truth, have fathered the fantastic thesis that there never was any such god as Awto. They believe, or profess to believe, that the immolatory vehicles of the ancients, and the huge destruction of life and limb caused by their use, were quite without religious significance.

A premise so absurd could be maintained only by madmen or charlatans. I mention it merely that I may refute and dismiss it with all the contempt that it deserves.

Of course, I cannot deny the dubiousness of some of our archaeological deductions. Great difficulties have attended our researches in the continent-embracing deserts of Hamurriqua, where all food-supplies and water must be transported for thousands of miles.

The buildings and writings of the ancients, often made of the most ephemeral materials, lie deep in ever-drifting sands that no human foot has trod for millenniums. Therefore, it is small wonder that guesswork must sometimes fill the gaps of precise knowledge.

I can safely say, however, that few of our deductions are so completely

proven, so solidly based, as those relating to the Awto cult. The evidence, though largely circumstantial, is overwhelming.

Like most religions, it would seem that this cult was obscure and shadowy in its origin. Legend and history have both lost the name of the first promulgator. The earliest cars of immolation were slow and clumsy, and the rite of sacrifice was perhaps rarely and furtively practised in the beginning. There is no doubt, too, that the intended victims often escaped. Awto, at first, can hardly have inspired the universal fear and reverence of later epochs.

Certain scraps of Hamurriquanean printing, miraculously preserved in air-tight vaults and deciphered before they could crumble, have given us the names of two early prophets of Awto, Anriford and Dhodzh. These amassed fortunes from the credulity of their benighted followers. It was under the influence of these prophets that the dark and baleful religion spread by leaps and bounds, until no Hamurriquanean street or highway was safe from the thunderously rolling wheels of the sacrificial cars.

It is doubtful whether Awto, like most other savage and primordial deities, was ever represented by graven images. At least, no such images have been recovered in all our delvings. However, the rusty remains of the iron-built temples of Awto, called *grahges*, have been exhumed everywhere in immense numbers.

Strange vessels and metal implements of mysterious hieratic use have been found in the *grahges*, together with traces of oils by which the sacred vehicles were anointed, and the vehicles lie buried in far-spread, colossal scrapheaps. All this, however, throws little light on the deity himself.

It is probable that Awto, sometimes known as Mhotawr, was simply an abstract principle of death and destruction and was believed to manifest himself through the homicidal speed and fury of the fatal machines. His demented devotees flung themselves before these vehicles as before the embodiment of the god.

The power and influence of Awto's priesthood, as well as its numbers, must have been well nigh beyond estimation. The priesthood, it would seem, was divided into at least three orders:

The *mekniks*, or keepers of the *grahges*. The *shophurs*, who drove the sacred vehicles. And an order—whose special name has been lost—that served as guardians of innumerable wayside shrines. It was at these shrines where a mineral liquid called *ghas*, used in the fuelling of the vehicles, was dispensed from crude and curious pumping mechanisms.

**S**EVERAL well preserved mummies of *mekniks*, in sacerdotal raiment blackened by the sacred oils, have been recovered from *grahges* in the central Hamurriquanean deserts, where they were apparently buried by sudden sandstorms.

Chemical analysis of the oiled garments has so far failed to confirm a certain legendary belief current among the degenerate bushmen who form the scant remnant of Hamurriqua's teeming myriads. I refer to a belief that the oils used in anointing those ancient cars were often mixed with unctuous matters obtained from the bodies of their victims.

However, a usage so barbarous would have conformed well enough with the principles of the hideous cult. Further research may establish the old legend as a truth.

From the evidence we have unearthed, it is plain that the cult assumed enormous power and wide-spread proportions within a few decades of its inception. The awful apex was reached in little more than a century. In my opinion, it is no coincidence that the whole period of the Awto cult corresponded very closely with Hamurriqua's decline and ultimate downfall.

Some will consider my statements too definite, and will ask for the evidence above mentioned. In answer, I need only point to the condition of those skeletons exhumed by thousands from tombs and vaults dated according to the Hamurriquanean chronology.

Throughout the time-period we have assigned to the Awto cult there is a steady, accelerative increase of bone-fractures, often of the most horribly complicated nature. Toward the end, when the fearful cult was at its height, we find few skeletons that do not show at least one or two minor, if not major, breakages.

The shattered condition of these skeletons, often decapitated or wholly disarticulated, is almost beyond belief.

The rusty remains of the ancient vehicles bear similar witness. Built with an eye to ever greater speed and deadliness, they fall into types that show the ghastly growth and progress of the cult. The later types, found in prodigious numbers, are always more or less dented, broken, crumpled—often they are mere heaps of indescribably tangled wreckage.

Toward the end, it would seem that virtually the whole population must have belonged to the blood-mad priesthood. Going forth daily in the rituals of Awto, they must have turned their cars upon each other, hurtling together with the violence of projectiles. A universal mania for speed went hand in hand with a mania for homicide and suicide.

Picture, if you can, the ever-mounting horror of it all. The nation-wide madness of immolation. The carnivals of bloody holidays. The highways lined from coast to coast with crushed and dismembered sacrifices!

Can you wonder that this ancient people, their numbers decimated, their mentality sapped and bestialized by dire superstition, should have declined so rapidly? Should have fallen almost without a struggle before the hordes of the Orient?

Let history and archaeology draw the curtain. The moral is plain. But luckily, in our present state of high enlightenment, we have little need to fear the rise of any savage error such as that which attended the worship of Awto.

*Obituary item broadcast from Tosh-*

*tush on the 1st day of the year 5999:*

We are sorry to record the sudden death of Professor Erru Saggus, who had just delivered the last of his series of lectures on Hamurriquanean Archaeology at the University of Tosh-Tush.

Returning on the same afternoon to his home in the Himalayas, Professor Saggus was the victim of a most unfortunate accident. His stratosphere ship, one of the very newest and speediest models, collided within a few leagues of its destination with a ship driven by one Jar Ghoshtar, a chemistry student from the great College of Ustraleendia.

Both ships were annihilated by the impact, plunging earthward in a single flaming meteoric mass which ignited and destroyed an entire Himalayan village. Several hundred people are said to have burned to death in the resultant conflagration.

Such accidents are all too frequent nowadays, owing to the crowded condition of stratosphere traffic. We must deplore the recklessness of navigators who exceed the 950 mile speed limit. All who saw the recent accident bear witness that Erru Saggus and Jar Ghoshtar were both driving at a speed very much in excess of 1000 miles per hour.

While regretting this present-day mania for mere mileage, we cannot agree with certain ill-advised satirists who have tried to draw a parallel between the fatalities of modern traffic and the ancient rites of immolation to the god Awto.

Superstition is one thing, Science is another. Such archaeologists as Professor Saggus have proven to us that the worshippers of Awto were the victims of a dark and baleful error. It is unthinkable that such superstition will ever again prevail. With pride for our achievements, and full confidence in the future, we can number the Most Honorable Professor Erru Saggus among the martyrs of Science.

COMING NEXT MONTH

VIA SUN, a Story by GORDON A. GILES

# The Reader Speaks



## THE END OF ANTON YORK

By Howard C. Wolfe, Jr.

Having just finished reading the December issue of **THRILLING WONDER STORIES**, I am aware of only two sensations regarding the magazine. One is a feeling of gladness, caused by learning the magazine is to be issued each month. The other is a feeling of regret, occasioned by what appears to be the most untimely death of the immortal Anton York.

The closing paragraphs of "The Three Eternals," by Eando Binder, seem to hold the slightest suggestion that possibly Anton York was not destroyed. I certainly hope such is the case, and that we will soon have another of Binder's stories of Anton York.

I am a traveling man, and lonely evenings are made much more interesting by T.W.S. I enjoy reading the entire magazine, sufficiently so, too, that I haven't missed a copy in the past two or more years. I feel sure you will receive a storm of protest over the end of Anton York, and I want to be among those who register themselves as being in favor of Binder getting Anton York and returning him to us in another story.—Doering Hotel, Temple, Texas.

## NEW S-F QUIZ?

By Francis Litz

Every issue, as it comes out, seems to be better than the previous one. Again I see that Oscar J. Friend is back with a nifty story. And not only that, but there's one by Kelvin Kent. As for Kummer, I always enjoyed his yarns so I think his "Signboard of Space" is worthy of reading. Don't whatever you do drop that feature IF by Jack Binder. And **SCIENTIFACTS** is and always was good, too. The December cover, incidentally, is the best T.W.S. has had since last year. One thing more . . . why not have a science-fiction quiz added to the present **SCIENCE QUIZ**?—703 Brown Street, Rochester, New York.

## WE FOUND MANX IN TROUBLE!

By Bill Brady

Twelve issues a year! Wow! Seems to me as if you're bitin' off a pretty hefty cud. How do you expect to do it? Of course, I hope you do—t'll mean twice as much swell science fiction for the insatiable reader. But that will mean twice the wordage, and—how I hate to say this—you'll have to fight a quality nosedive for the first few months. However, T.W.S. has the background and tradition to come safely through the period of its development, and I sincerely believe that it will. Going monthly spawns a host of new prob-

In this department we shall publish your opinions every month. After all, this is **YOUR** magazine, and it is edited for **YOU**. If a story in **THRILLING WONDER STORIES** fails to click with you, it is up to you to let us know about it. We welcome your letters whether they are complimentary or critical—or contain good old-fashioned brickbats! Write regularly! As many of your letters as possible will be printed herein. We cannot undertake to enter into private correspondence.

lems to be dealt with, and we may as well start the fireworks right here. Serials? Well, we already have a complete novel supplement, though they aren't true novel lengths—that is, 40,000 words and up. And if a really rip-snorting good yarn comes along, we still have **STARTLING STORIES** which was made to order for long novels. So let us say, temporarily at least, no serials.

To justify the following suggestions let me quote from page 120 of the December issue. "If the magazine is to grow, evolving into the finest, most distinctive publication ever conceived, we'll all have to do our part. . . . You can do yours by criticizing each and every issue, telling us your wants and dislikes."

So—if you're going monthly, let's really go the whole hog and trim the edges. Besides being far easier to leaf, trimmed edges prevent the mag assuming that ratty, disreputable look after having lain around a few days. There's been enough clamor about this—let's have some action.

And Mackinaw City's Aylesworth says, "Down with the **SFTPOBEMOTCOSEF**," does he? I say, "Down with Aylesworth" and therefore, by reaction, "Up with the **SFTPOB** etc.—ad infinitum—" Let its banners float high and long. To appreciate fully what I mean, close one eye and peek at the December cover. It should convince anyone.

After sifting past that awesome December jacket, I found two excellent yarns inside. First was Eando Binder's novel "The Three Eternals." The Binder team gave up an excellent character when they killed Anton York. And in second place, Frederic Arnold Kummer at last produces something of note, "Signboard of Space."

The shorts, which dominated the last issue, bowed out this time with only "World's Pharaoh" and Bester's surprising "No Help Wanted" rating above average. Kelvin Kent's garrulous character, Pete Manx, is really a find. Where did you get him? "Shadow World" was acceptable, but Cummings has somehow lost the touch he had when he wrote his masterpieces of subatomic worlds. Remember "The Girl in the Golden Atom" and "Beyond the Vanishing Point"?

Kuttner does better at fantasies and weirds than at Sfs. Neither his "Suicide Squad" nor Friend's "Coup D'Etat" was outstanding. However, I am glad to report that you had nothing as bad as Merwin's unfortunate "Scourge Below" of last month. Science fiction hit a new low with that effort.

Here's hoping that **WONDER** hits a new high as a monthly!—Wolverine, Michigan.

## BUT THERE IS A SPACE SHIP IN ARTHUR'S YARN!

By George M. Aylesworth

Ah! The cover on that December issue—what a masterpiece. More like that one, please. And a very good short it illustrated, too. "Coup D'Etat" by Oscar J. Friend was really different. This author has been knocking off some good yarns for T.W.S. lately and likewise Kelvin Kent with his new Pete Manx series.

"Signboard of Space" and "The Three Eternals" were the best of the longer stories. Henry Kuttner's "Suicide Squad" wasn't up to expectations. The familiar plot of two guys and one gal, with a little different twist. Wellman's short was only fair, but Ray Cummings' yarn was very good.

I'm glad to hear **THRILLING WONDER**

STORIES is a monthly now. Two months was too long to wait for my favorite mag. I'm not looking forward with any great degree of pleasure to these Abbott family stories ever since I saw one of those Jones family "epics" on the screen. But if there's even one space ship involved in the plot, I guess I can stand it.—Box 508, Mackinaw City, Mich.

## FIRST PRIZE FOR BINDER

By Thomas Hoguet

"The Three Eternals," by Eando Binder, takes first prize in the December THRILLING WONDER STORIES. "Coup D'Etat" wins second place, its chief appeal being in the style in which it was presented. "Signboard of Space" and "Suicide Squad" come next.

I think I overlooked something. "World's Pharaoh" deserves second place. More Pete Manx yarns, please.

All your departments are swell. Glad you're going monthly.—601 West 136th Street, New York City, N. Y.

## BURROUGHS DUO IN THIS ISSUE!

By Philip Bronson, Jr.

I hardly know how to express myself. I received two equally pleasant surprises in the December issue. One, "The Three Eternals," which surpassed any story I have ever seen in T.W.S. I was saddened at the end of this story by the deaths of Anton and Vera York.

My second surprise was the announcement that T.W.S. is now a monthly publication. How about another story by the Burroughs brothers? I enjoyed their "The Man Without a World" in a recent issue immensely. H. V. Brown is a good cover artist, but I would like to see a different one for a change. Your interior artists are all very good. Especially Wesso. More stories by Jack Williamson would be welcome.—New York City.

## FOUR BELLS FOR BESTER

By Daniel Packard King

I've been reading your magazine for over a year now, and the December issue sure is tops! Such an array of wonderful stories never hit the newsstands before. Here's how it rates:

Cover: Fairly good, but wasn't it like the ant cover of last December? (Far from it.—Ed.) Up with the SETPOBEMOTCOSEFM. "The Three Eternals": Excellent! Just goes to show how that novel section improves T.W.S. I bury myself in it before looking at the cover. Mr. Binder—I'm coming after you with a baseball bat! You deliberately blew up Anton York, and that's unforgivable. Can't we get him back somehow, please?

"Signboard of Space" was Kummer's masterpiece. I liked the characters, idea, theory, and everything. I liked "Suicide Squad," but Kuttner sounds better with a Tony Quade mask on. Good story, though.

"World's Pharaoh": Good old Manx! Kent seems to word his stories just so they'll get

your fancy. I can't explain it. Liked the pun in the title. "No Help Wanted," by Alfred Bester, was a good yarn. Although it was a short short, I was ready to give it four bells.

Let's have more novelets, less shorts and short shorts. I'm glad to see that Gerry Carlyle, Tony Quade, Pete Manx and Tubby are coming back. And I'm sure glad you are monthly now. About time. Congratulations:—Cragmor, Colorado Springs, Colorado.

## BRING BACK THE YORKSI

By Dan Wilhite

I am mad! In fact, I am quite angry at you, and can find no possible excuse for what you have done.

Now please understand me; I am not one who criticizes another's work when I know nothing about it, or to strain my brain thinking up words of praise for something I have enjoyed. But now you have gone even beyond my limits of endurance.

Why did you let Binder kill the Yorks in "The Three Eternals"? I have followed them from the first and enjoyed each story as it came out. In fact, I was looking forward to several more sequels.

But in my grief I see one ray of hope. What is to become of Kaligor, the indestructible? Binder has something there, so make him use it to his fullest ability.—1122 Center Street, Little Rock, Ark.

## CONTEST COMMENT

By William E. Simmons

"Signboard of Space" was a unique story, the outstanding story for the December issue. Glad to see a "Via" yarn scheduled for next month. Giles is a genius when it comes to description; his "Via Venus" story was a masterpiece. Why not continue those one or two-page short shorts like Bester's "No Help Wanted?"

As for contests, let's have something entirely new, like a space ship drawing contest, or an "In Outer Space" illustration. Something that would wrest from us T.W.S. fans that hidden spark of talent that we all, I'm sure, harbor secretly in our hearts. For the first prize we'll award the lucky fellow, or girl, a one-trip ticket to Proxima Centauri, or some such place.—2035 N. Kedzie Ave., Chicago, Ill.

## BINDER'S MASTERPIECE

By Stanley Wells

It was the October and December issues that really sold me on T.W.S. In October, you gave us "Planet of Eternal Night," "Hero" and "Via Venus," all fine science fiction. Even better was the December number with "The Three Eternals," probably E. Binder's most thrilling yarn since his memor-

(Concluded on Page 126)

# College Humor

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Novae, nebulae, dwarf stars—astronomy has them all catalogued and earmarked, via the spectroscope, for posterity!

But how about our own backyard—Earth? Just how much do we know regarding the Earth's interior? Comparatively little, stacked up against our familiarity with the Solar System and its interstellar neighbors.

What goes on more than three miles below Earth's surface? The answer remains more of a mystery to present-day scientists than the Rings of Saturn, millions of miles away.

Are there precious metals in abundance below Earth's surface? Can the internal heat speculated to exist at

the Earth's core be tapped by engineers? And when will man descend into the bowels of the Earth, tearing away strata after strata as a physicist strips an atom?

Science relegates the answer into the dubious domain of "the future." "Wait until we have atomic power!" scientists cry. "Then watch us delve below!"

Alas, everything is being shelved for "the future." A little more action, magic men! Take a tip from the armchair scientists!

## BANNER ISSUES!

Sixty days have passed—and two banner issues of **THRILLING WONDER STORIES** have already appeared at the newsstands. Certainly, that's official proof that T.W.S. is here to stay as a monthly for keeps! As this is being written letters are still pouring in from every corner of the world congratulating us on T.W.S.'s new monthly venture.

And somehow, we feel that now we're twice as close to every reader than ever before. This month's issue represents the very best in scientification that we were able to pack between the covers of one publication. And we'll be back next month with another prize number. We'll be trying to outdo ourselves in each succeeding issue—that's a promise!

A few notes about the last issue, then we'll skip on to the future ones. Scan the letters in **THE READER SPEAKS** and you'll find all the ink-slingers unanimous on one point—that Eando Binder's novel, "The Three Eternals," besides being a mighty good story, created quite a furor. The reason—author Binder disposed of his greatest scientification character, Anton York.

We've seen many fictional characters come and go in our day. Some abandoned by the authors into the limbo of forgetfulness. Some dropped because they became tiresome. But never have we seen such a storm of protest evidenced over the demise of a character as in the case of Anton York.

Result, Eando Binder is coming into our office one of these afternoons for an editorial pow-wow. And we'll see that the immortal Anton York becomes immortal. So watch for the return of the Yorks!

(Continued on Page 118)

## MOST POPULAR STORY IN DECEMBER ISSUE

Here, in each issue, **THRILLING WONDER STORIES** names the most popular story in a preceding issue.

The best-liked story in the December issue, based on an analysis of all letters sent to the editor, was:

### THE THREE ETERNALS

A Novel

By Eando Binder

Second and third places, respectively, went to Frederic Arnold Kummer, Jr., and Kelvin Kent for **SIGNBOARD OF SPACE** and **WORLD'S PHAROAH**.

Which do you consider the most outstanding science fiction story in this issue? Whether it's a novelet, short story, or short short—your vote will designate your favorite story.

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There's a lot of excellent fantasy material at our elbow these days. Now that T.W.S. is a monthly, we're hoping to schedule the humdingers on hand for very early issues. There's a new "Tubby" story, "World Upside Down," that we're eager to see in print. And we'll soon feature a new short by Kelvin Kent, "Science Is Golden," starring Pete Manz, the human anachronism.

Gordon A. Giles will be around soon with the final episode of his Venus series, "Via Sun." These tales, plus a good many more than we haven't space to talk about, are all lined up on your fantasy hit parade. Watch for them in coming issues as **THRILLING WONDER STORIES** offers you the greatest scientification show on Earth!



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**STARTLING STORIES**

And now for the other great magazine in our scientification trio—**STARTLING STORIES.** One of the most popular authors of fantasy fiction presents a full book-length novel in the March issue. The writer is Henry Kuttner, creator of the famed "Hollywood-on-the-Moon" series. You'll find his novel, **WHEN NEW YORK VANISHED**, a gripping narrative of a stolen metropolis. See what happens when New York City is suddenly isolated from the rest of the world!

Bob Olsen's unforgettable yarn of a miracle invention, "The Phantom Television," is

the masterpiece nominated for HALL OF FAME in this issue. Here's your chance to reread this memorable classic.

Other star short stories and distinctive scientific features in the March issue of STAR-TLING STORIES. Science Quiz fans will enjoy testing their wits on the SCIENTIFIC CROSSWORD PUZZLE. And Binder followers will enjoy the illustrated feature, THEY CHANGED THE WORLD, which tells the life-story of Sir Isaac Newton in picture form. Streamlined scientific fact, fiction and features on every page!

## AMATEUR STORY CONTEST

Have you ever tried to write science fiction? There's still time to get in the swim in our national contest for amateur science fiction writers, so study this announcement carefully!

THRILLING WONDER STORIES is the only national magazine publishing stories by its readers! We believe that every one of our followers has at least one sciencefiction story worth telling. We want to see that yarn, and if it's enjoyable reading we'll be glad to publish it.

So send it along; whether it features an interplanetary theme, or involves the fourth dimension, the future, invisibility, television, etc. If your story is acceptable, we'll pur-

(Continued on Page 120)

## APPLICATION FOR MEMBERSHIP SCIENCE FICTION LEAGUE

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(Continued from Page 119)

chase it at the same rates paid to our staff writers.

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Mail your stories to **AMATEUR WRITERS' EDITOR, THRILLING WONDER STORIES**, 22 W. 48th St., New York City.

## A NEW WINNER

The latest winner in our prize amateur contest is **LEO SONDEREGGER**, of Lincoln, Nebraska. Watch for his short story, **THE THOUGHT MATERIALIZER**. It is scheduled for appearance in an early issue of **THRILLING WONDER STORIES**.

Honorable Mentions in the last contest are awarded to: **Henry Biermann**, 1541 Oakdale Avenue, Chicago, Ill., and **A. H. Saperstein**, 742 15th St., Miami Beach, Florida.

A new crop of winners in a forthcoming issue! To those who have participated already, thanks, and won't you try again?

## TREASURE HUNT CONTEST

If you've ever wanted to own an original cover painting by Frank R. Paul—and who hasn't?—then turn to page 43 for details of a brand-new scientific contest, with rare original illustrations offered as prizes.

It's all a matter of prospecting this issue for the various chemical elements. We invite every one of our readers to participate in this chemical treasure hunt. Here's a chance to win yourself a cover or an illustration by your favorite artist!

## JOIN THE LEAGUE

Have you joined the **SCIENCE FICTION LEAGUE** yet? It's an international organization composed of the world's most enthusiastic followers of sciencefiction—and it fosters that intangible bond between all science fiction readers.

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this magazine, so that the date and title of the magazine show, and send it, together with the coupon appearing on Page 119, to **SCIENCE FICTION LEAGUE**, 22 W. 48th St., New York, enclosing a stamped, self-addressed envelope.

And readers—write the editor of **THRILLING WONDER STORIES** a regular monthly letter. We want all your suggestions and criticisms. They are helping to make T.W.S. the magazine you like best!—**THE EDITOR.**

## CHAPTER NEWS AND GENERAL ACTIVITIES

### MEETING OF QUEENS SCIENCE SERVICE FICTION LEAGUE

Despite heavy rainfall, twenty-five attended the fall meeting of the **QUEENS SFL**. Among those present were **FRANK R. PAUL**, staff artist, **OTTO BINDER**, well known author, **J. SCHWARTZ**, Chas. D. **HORNIG**, C. H. Ruppert, **Erle Korschak**, Will Sykora, the Ladies' Auxiliary, and many others.

After the minutes were read, and accepted, the Director announced that this was the First Anniversary Meeting, and the Secretary was asked to read the minutes of the First meeting. Chas. D. Hornig, at this time gave a short speech on Esperanto, and invited anyone who may attend, to the Esperanto Club meetings.

Three new members were voted in. They are **FRANK R. PAUL**, **OTTO BINDER** and fan **Robert Studley**. All three were voted in on one ballot, as per the new rules.

The guests, Frank R. Paul, and Otto Binder, both gave a short speech, and later were voted in as members. Chas. D. Hornig & J. Schwartz, gave a resumé of the trip to the west coast, and compared the meetings of the SFL & the LASFL.

The last half of the meeting was taken up by long discussions, concerning the different phases of Science Fiction past and present. Many interesting points were brought up, by Scott, Feldman, Will Sykora, Chas. D. Hornig, Dick Burns, and others.—**Mario Raicic, Jr., Sec'y-Treas.**

### NEW MEMBERS UNITED STATES

Michael Gomez, Jr., San Francisco, Calif.; Max Simon, Williston, S. C.; Cecil G. White, Bangor, Maine; Eugene J. Fater, Philadelphia, Pa.; Joseph Karroll, New York, N. Y.; Bill Broad, Jr., Minneapolis, Minn.; Lowell Galyan, San Francisco, Calif.; Michael Roberts, Boston, Mass.; Robert Beach, Warren, Pa.; Bill Garfinkle, Bradford, Pa.; Alan Mierke, Rochester, N. Y.; Clare Mitchell, Los Angeles, Calif.; Harold J. Hurwitz, West Hartford, Conn.; Fred A. Heath, New York, N. Y.

James Doherty, Newport, Ark.; Arnold Goldberg, Chicago, Ill.; Kenneth Neiltopp, Norton, Kans.; Kenny Moore, Red Lodge, Mont.; Edward L. Luther, Albany, N. Y.; Robert C. Scott, Beckley, W. Va.; Michael Levannos, Philadelphia, Pa.; J. J. Fortier, Oakland, Calif.; Kenny Moore, Red Lodge, Mont.; Donald B. Thompson, Lincoln, Nebr.; John Patterson, Tiffin, Ohio.

### FOREIGN

John Paul, Glasgow, Scotland; Ronald M. Weston, Sydney, Australia.

### COMING NEXT MONTH

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# THE STORY BEHIND THE STORY

THE future may sound inviting to us, what with its golden promise of such miracles of science to come as interplanetary travel, transmutation of the elements, the transmission of matter, and so forth. But there's the matter of compensation, and someone will have to pay for all the streamlined deluxe comforts of tomorrow. That someone—the very inheritors of this great green globe! (And we don't mean that they'll have to pay taxes for the debts of today!) Yes, living in the world of tomorrow looms up as a gloomy prospect to us. Think of the school children of future eras. Not only will they have to be acquainted with ancient history—but they'll have to remember some two or three thousand years of modern history. A modern history crammed with multiple wars, hordes of industrial revolutions, hundreds of scientific accomplishments, etc.

And what a headache such a simple subject as geography or, as it probably will be called—astro-geography—will present! Learning the names of the chief countries, cities, rivers and lakes of one planet is plenty tough. But imagine having to remember the names of important places on eight other planets, not to mention a few dozen satellites.

So we'll stick to 1940, where one can easily insure getting into the future painlessly by reserving a regular monthly copy of T.W.S.!

## SOLAR ENERGY

Speaking of tomorrow's history, Edmond Hamilton, the author of this month's feature novel, DOOM OVER VENUS, is one writer who seems to have been born about twenty centuries too soon. Mr. Hamilton, we understand, has already compiled his own private history of the future, in intriguing factual style. Huge reference books at his elbow tell one such pertinent items as the name of the first explorer to land on Jupiter, the population of Jovopolis, the five big colonies on Saturn, the first emperor of Mars.

Followers of Mr. Hamilton's tales will find him tapping his compendium of scientific statistics to provide colorful and authentic backgrounds for each of his interplanetary stories. That's probably the main reason why his stories sound so convincing. And in the meanwhile, get ready for a sugar-coated travelogue on Venus when you read DOOM OVER VENUS. Here's how the

story came to be written:

Power from the sun! That has been a dream of scientists and engineers for many decades. We know that the energy emitted by the sun is colossal—even here on Earth, the solar energy falling on an arid region is equal to about a million horsepower a square mile. And already, solar engines and boilers have been devised that harness some of this power. The photoelectric cell has pointed a possible way to achieve conversion of solar radiation directly into electric power.

Reading of the quest for solar power, it occurred to me, "What a spot for a solar power plant Mercury would be!" For Mercury, being only a little more than a third as far from the sun as is our Earth, receives a vastly greater torrent of solar radiation, according to the inverse-square law. The so-called "black sphere" temperature at Earth's distance from the sun is 4 degrees Centigrade. At Mercury's distance, it is 172 degrees!

Furthermore, this flood of solar radiation which Mercury receives is unsoftened by atmospheric obstruction, since we know that Mercury has little or no air due to its extremely low velocity of escape. And finally, one side of Mercury always faces the sun, and so a solar power plant set up there would be in continual operation. It would never be halted by night, or by clouds or storms, from drinking in the terrific flood of energy.

Thinking of this, it seemed inevitable to me that whenever in the future space travel became a reality and the other worlds were colonized, a great solar power station would be set up on the inward side of Mercury. Such a station, absorbing solar energy by the trillions of horsepower, could send it to the other planets by high frequency radio beam. Experiments have already been made on such wireless transmission of power, and while the technique is still fumbling and faulty, there seems little doubt that it will some day be a high-efficiency form of transmission.

Mercury, then, would be the power-center of the whole Solar System. Factories on far-off worlds would be run by the power broadcast from that little planet. Cities of Earth and Mars and Venus would be lighted at night by that power. In fact, it would probably dwarf completely all other sources of power in the system.

And because of the importance of such a power-supply, it would inevitably be the center of all sorts of interplanetary intrigues. Any planet that could get hold of it would have a strangle hold on the whole system. Such an interplanetary background is the basis of DOOM OVER VENUS.

The dream-houses in this story may seem a little weird, as a form of entertainment. And yet I firmly believe that some such device will be used in the future, to give people vicarious thrills of astonishing verisimilitude. Every generation demands more realistic entertainment. Moving pictures won out because they made the story seem real, something happening in front of our eyes. Then we demanded that the pictures talk—and that made them more realistic still. Experiments have been made in using the sense of smell also—wafting the odor of pine woods from the ventilators when a forest scene is on the screen, or the salt tang of the ocean in a sea scene, etc. Someone has suggested that the "talkies" may someday become the "feelies," in which we somehow feel things right along with the hero.

I believe all this is leading up to some form of entertainment like the dream-houses—an entertainment-form in which there will be no stage or picture or anything like that, but in which the whole adventure will take place in your own mind. Probably, if that ever comes to pass, one of the most popular dreams of all will be to dream yourself back in the wild and violent 20th Century!

## SUPER-EVOLUTION

It's a far cry from the ravishing beauty of Gerry Carlyle to the heroine of Arthur K.

(Continued on Page 124)

# MAKE YOUR OWN RECORDS AT HOME



Charlie Barnett with Judy Ellington and Larry Taylor, vocalists in his band, listen to a record they just made with Home Records.

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(Continued from Page 123)

Barnes' latest novelet, **DAY OF THE TITANS**. From time immemorial all stories have had beautiful heroines and handsome heroes. But that rule needn't be strictly observed to make a story interesting.

And Barnes proves this point in **DAY OF THE TITANS**, a powerful and thought-provoking story of two human misfits—an ugly duckling and the freak who saved the world. It's a gripping story of evolution gone haywire inspired, incredibly enough, by some rather tame ingredients. Witness:

**DAY OF THE TITANS** had, I believe, a rather unique plot germ. Certainly it was suggested to me by as simple and clean and straightforward creature as exists—not one calculated to start the tortuous wheels of creation a-grinding.

Up here in my mountain retreat the country is set aside as a game refuge. As a consequence, the deer are very tame and practically walk into the house begging for food. My favorite was a young buck, who was distinguished in three ways. (1) He would eat from my hand. (2) One horn was a spike, while the other horn had two points. (3) He had a black coat. The California mule deer are dark in winter, but light tan in spring and summer. But my pet was always black.

He was, in short, a "sport" in outdoor parlance. Or a mutant, scientifically. He started me to thinking about the wheres and whys of mutation, and the result is the novelet in this issue.

Of all the science fiction I've written, I believe that **DAY OF THE TITANS** comes closest to probability. I have stuck unusually close to accepted theory all the way through. Granted the one premise concerning the radio waves "ripping holes," so to speak, in the upper atmospheric layers, the things I have recorded here might well actually occur, I feel. Well, almost, anyhow!

I hope some of the readers will enjoy unraveling this little mystery; the best part of writing is pleasing someone.

P.S. The black buck still hangs around—has two points on one horn and 3 on the other now—but he's not quite so bold as he used to be. He has responsibilities now—a beautiful doe and a youngster that runs as if she'd fly all apart the next leap. If any reader wishes to mull a cookie in appreciation, I promise to deliver it to the right place.

## THE TARZAN-TEAM AGAIN

Lightning strikes twice—at least in the case of John Coleman Burroughs and Hubert Burroughs. In the first story by the Tarzan-team, "The Man Without A World," published in our Tenth Anniversary Issue, the descendants of Earth's sole survivors discovered a new habitable world—but a world perpetually bombarded with lightning bolts.

So here's the sequel, **THE LIGHTNING MEN**, a complete novelet in itself, wherein Mal Mandark II and the founders of Nova Terra combat the electrical elements. The story sparkles with scientific speculations, so let's have a few flashes from you readers as to its possibilities. And here's a word from the duo:

**THE LIGHTNING MEN**, of course, is little more than a chronicle of events that took place upon Nova Terra as flashed to us upon our magni-corpuscular telescopic visiscreen. As interstellar static occasionally interfered with our reception, and since the events had not yet actually taken place, it was necessary for us to draw liberally at times upon our imaginations to furnish a scientific ex-



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planation of what we were witnessing.

When our audiophones hummed and sizzled and the Lightning Men appeared on our screen we felt certain they would be the natural inhabitants of a planet whose atmosphere fairly bubbles with electrical potential. We saw immediately how inevitable it was that the Lightning Men should evolve condenser accumulators of high dielectric capacity to store the vast potential which they pulled from the supercharged atmosphere of Nova Terra. Armed with the power of lightning, what wonders could they evolve! First of all we knew they would create great transformers that would furnish mechanical power and operate machinery to alleviate their chores of living.

To lessen further the tasks accompanying the maintenance and operation of the machinery the Lightning Men would make use of slaves. Being inclined toward labor saving anyway, we thought the Lightning Men would naturally make use of their powers to transform their slaves into shapes best suited for specific functions.

Now this we knew they could do only by shooting highly accelerated electronic beams at the protons within the living tissue cells and thereby stimulate a change of growth or shrinkage according to any preconceived pattern. Thus, for example, when a slave was needed to turn a crank, he would be transformed into a single living hand and all extraneous limbs and energy consuming parts would be eliminated.

With the capture and enslavement of other human beings to serve their every want the Lightning Men would become the same of indolence. And therein, we felt certain, lay the plot of the story; for when our visiscreen showed us that Mal Mandark II and his Arkian people had been captured we knew things would begin to hum for the lazy Lightning Men.

To find out just what did hum, we humbly beg you to read our story. Then see if you wouldn't like to be a big mouth and sit around all day and have someone feed you salted peanuts.

## THE THINKING ROBOT

How many of you took a rocket trip to Mars at the New York World's Fair? Did you ever speculate fancifully as to what would happen if you entered the "space ship"—and the craft actually did take off for the red planet?

F. Orlin Tremaine, the author of TRUE CONFESSION, had a similar idea when he viewed the robot at the Fair. But that's getting ahead of his letter. . . .

At the New York World's Fair, among the thousand wonders of modern science, is exhibited a Robot, a man of steel and wire, which answers questions! It is a marvelous promise for the future.

I was lost in wonder, contemplating this marvel of machinery, and got to thinking. How marvelous it would be if the wires fused in some inexplicable manner and produced thought! A thinking robot! What would he do?

I went home and started writing. The laboratory was the Fair itself. B.F.A.-1, the hero of TRUE CONFESSION, was the result.

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## THE READER SPEAKS

(Concluded from Page 116)

able "From Dawn to Dusk." Frederic Kummer's magnificent "Signboard of Space" and Kelvin Ken's excellent, and very amusing "World's Pharaoh."

The "Via" and Pete Manx series are really fine and should be continued indefinitely. Not so the Carlyle-Quade series. Their latest, "The Energy Eaters" was neither amusing nor important.

Eando Binder can usually be counted upon for a really important yarn, with a "different" angle. Hence his fine "Three Eternals" delighted rather than surprised. "Signboard of Space" is certainly Freddy's best yarn in some time. It should prove very popular, and is deserving of all the praise it will undoubtedly get.

Keep Finlay, please. I believe he's becoming even better than the great Wesso. Brown's covers are definitely an asset. I don't see how they could possibly miss attracting attention; favorable or otherwise.—235 Moe Street, San Francisco, Calif.

## PAGING MESSRS. LORENZ-FITZGERALD!

By Eric Roloff

I have been reading your magazine since the Oct. 1938 issue. (That was the first S.F. magazine I ever read.) Of all the issues you have published since then, the Dec. issue tops them all.

The "Three Eternals" in my opinion is the best story Eando Binder has written and you have published. I liked "Signboard of Space" very much, but it ranks far below the "Three Eternals."

In the Nov. issue of your companion magazine, **STARTLING STORIES**, Jack Williamson has written a fine story in "The Portress of Utopia." It ranks with his "After Worlds End" and "One Against the Legion."

I was glad to see Pete Manx back in this issue and hope you continue these stories.

Here comes the brickbat. In the "Three Eternals" you talk of Anton York's ship as going 10 times the speed of light. I am not sure I am correct about this but I think that Lorenz-Fitzgerald's contraction theory states that an object going at the speed of light would have no length but infinite mass, therefore how could Anton York see on the screen of his ship, the ship going to Alpha Centauri?

The short short, "No Help Wanted" by Alfred Bester was rather good. And last, I want to express my appreciation to you for making T.W.S. a monthly magazine.—Moon Valley Farm, Flat, Mo.

(The purpose of Anton York's bolide-screen is to detect dangerous objects coming toward his ship. No matter what velocity be attained, light rays coming toward him are detectable. At the moment he passed the object, it became invisible. But by then he knew its course.—Ed.)

## SCIENCE QUESTIONS AND ANSWERS

(Continued from Page 81)

stance which can measurably affect the chemical reactions of the human body when it is present in such small quantity as one part in forty billion. The difference between human happiness and stark tragedy is frequently traceable to an excess or deficiency of a minute amount of the chemical compound secreted by one of the important ductless glands.

There is an invisible pharmacy within our bodies which produces, prescribes, and administers suitable chemical agents on their

# BEST FUN, FICTION AND FOTOS IN

errands of life. The discussion of the functions of the eight ductless glands is a fascinating one. Truly, they are vital to man's existence.—Ed.

## TROPISM

I know that tropism—the attraction of organisms to light and gravity—is prevalent among plants. Is this true in the case of animals?—K. B., Salt Lake City, Utah.

The act of turning toward or being oriented by the stimulus of light, gravity, wind, food, and so on, is called a tropism. Thus, heliotropism, means turning to the light. At first the term was restricted to such plants as the sunflower, which turns after or follows the sun, owing to the stimulus of the sun's rays. It was then found that animals were heliotropic, and further studies on the acts of animals in response to different physical stimuli have resulted in a somewhat extensive nomenclature.

Certain plants, as plasmodia, and animals, as the sea cucumber, the starfish, and even the lady beetle, which are positively geotropic, are forced when on vertical surfaces to crawl upward; this is negative tropism. Rheotropism is illustrated by the action of fish in heading up stream and by the slime protozoan in creeping against the current. Hydrotropism is illustrated in the king crab. This organism, if placed on shore a few feet from the water's edge, will seek the water, perhaps oriented by the moisture not far away. Ants exhibit a reaction to heat (thermotropism) and also hydrotropism, in the care with which they move the eggs, young, and old larvae and pupae, as the nest becomes too warm or cold, moist or dry, at different times.—Ed.

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STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933, of Thrilling Wonder Stories, published bi-monthly at New York, N. Y., for October 1, 1933. State of New York } ss. County of New York }

Before me, a Notary Public in and for the State and County aforesaid, personally appeared H. L. Herbert, who, having been duly sworn according to law, deposes and says that he is the Business Manager of Thrilling Wonder Stories, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor and business manager are: Publisher, Better Publications, Inc., 22 West 48th Street, New York, N. Y.; Editor, Harvey Burns, 22 West 48th Street, New York, N. Y.; Managing Editor, none; Business Manager, H. L. Herbert, 22 West 48th St., New York, N. Y.

2. That the owners are: Better Publications, Inc., 22 West 48th Street, New York, N. Y.; N. L. Pines, 22 West 48th Street, New York, N. Y.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: none.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders, who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him. H. L. HERBERT, Business Manager.

Sworn to and subscribed before me this 3rd day of October, 1933. Eugene Webster, Notary Public, commission expires March 30, 1941.

## SCIENTIBOOK REVIEW

**THE EDGE OF RUNNING WATER.** By William Sloane. Published by Farrar and Rinehart, 1939, \$2.50.

After Sloane's fine "To Walk the Night," "The Edge of Running Water" is a disappointment. Basing his novel on a sound idea, the author loses himself in far too much verbiage. He is apparently trying to scare himself into conviction fits, but the reader is somewhat less impressionable.

A neurotic and slightly schizophrenic scientist, after his wife's death, collaborates with a spiritualist in building a machine which will open a gap between this world and the next.

The characters labor under a brooding pall of black horror, and are subject to hysterical outbursts and cryptic and ominous comments about the dangers of Going Too Far. When characters talk like that, it's pretty certain that one of them is Going Too Far. In this case it's the scientist, who breaks through into the fourth dimension, discovers little except a strong wind that blows from his laboratory into an apparently airless void.

There is a mysterious murder, and a lynching party organized by suspicious villagers, which ends abortively when the scientist turns on his machine and is blown into the fourth dimension himself.

The book has its good points, and the description of the machine, with wire-skeletoned, cloth-covered figures sitting about a seance table, is more than a little creepy; but the author fails to achieve his intended effect.

After all, one expects something more than a wind out of the fourth dimension. I do not rank "The Edge of Running Water" as anywhere near the equal of "To Walk the Night."

—H. K.

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# ANSWERS TO SCIENCE QUIZ

(See Pages 44-45)

## POSITIVE OR NEGATIVE

1. False.
2. True.
3. True.
4. True.
5. False.
6. True. And also in China.
7. True.
8. True.
9. True.
10. False. And also upon the intrinsic brightness of the star.
11. True.
12. False.
13. True.
14. True.
15. False. Knowledge of the radius is also essential.
16. True.
17. True.
18. True. As soon as the bullet leaves the muzzle of the gun, force of gravity begins to pull it downward.
19. True.
20. False. It does follow Mendelian law.

1. c
2. a
3. b
4. d
5. c
6. d
7. b
8. a
9. c
10. a

## TAKE A LETTER

### OPPOSITES ATTRACT

- 12, 6, 9, 11, 4, 8, 2, 13, 14, 5, 10, 3, 15, 7, 1.

### STAR-DUST

1. parsec; 2. galaxy; 3. spiral; 4. cluster; 5. diffuse; 6. spectra; 7. cepheids; 8. parallax; 9. velocity; 10. elliptical; 11. magellanic; 12. extragalactic.

### RADIUM RIDDLES

Bequerel, pitchblende, Curie, electroscopes, barium, phosphorescence, 100, million, radon, beta, gamma, cathode, X.

### WHAT'S YOUR SCIENCE I.Q.?

After you've completed the SCIENCE QUIZ, and checked your results with the correct answers, get a slide-rule and calculate your score. Here's how you rate:

- 30-38—Try Crossword Puzzles.
- 15-29—Stick to Fiction.
- 0-14—Absolute Zero
- 60-70—Superman.
- 49-59—Mental Marvel.
- 39-48—B.B. (Bachelor of Bookworms).

\*\*\*\*\*

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32x5.00-20	2.35	1.00	32x5.00-20	2.35	1.00	32x5.00-20	3.45	1.45
32x5.00-21	2.40	1.10	32x5.00-21	2.50	1.20	32x5.00-21	3.58	1.48
32x5.70-21	2.45	1.15	32x5.70-21	2.55	1.25	32x5.70-21	3.75	1.75
32x5.70-22	2.50	1.20	32x5.70-22	2.60	1.30	32x5.70-22	3.95	1.75
32x5.70-23	2.55	1.25	32x5.70-23	2.65	1.35	32x5.70-23	4.15	1.75
32x5.70-24	2.60	1.30	32x5.70-24	2.70	1.40	32x5.70-24	4.35	1.75
32x5.70-25	2.65	1.35	32x5.70-25	2.75	1.45	32x5.70-25	4.55	1.75
32x5.70-26	2.70	1.40	32x5.70-26	2.80	1.50	32x5.70-26	4.75	1.75
32x5.70-27	2.75	1.45	32x5.70-27	2.85	1.55	32x5.70-27	4.95	1.75
32x5.70-28	2.80	1.50	32x5.70-28	2.90	1.60	32x5.70-28	5.15	1.75
32x5.70-29	2.85	1.55	32x5.70-29	2.95	1.65	32x5.70-29	5.35	1.75
32x5.70-30	2.90	1.60	32x5.70-30	3.00	1.70	32x5.70-30	5.55	1.75
32x5.70-31	2.95	1.65	32x5.70-31	3.05	1.75	32x5.70-31	5.75	1.75
32x5.70-32	3.00	1.70	32x5.70-32	3.10	1.80	32x5.70-32	5.95	1.75
32x5.70-33	3.05	1.75	32x5.70-33	3.15	1.85	32x5.70-33	6.15	1.75
32x5.70-34	3.10	1.80	32x5.70-34	3.20	1.90	32x5.70-34	6.35	1.75
32x5.70-35	3.15	1.85	32x5.70-35	3.25	1.95	32x5.70-35	6.55	1.75
32x5.70-36	3.20	1.90	32x5.70-36	3.30	2.00	32x5.70-36	6.75	1.75
32x5.70-37	3.25	1.95	32x5.70-37	3.35	2.05	32x5.70-37	6.95	1.75
32x5.70-38	3.30	2.00	32x5.70-38	3.40	2.10	32x5.70-38	7.15	1.75
32x5.70-39	3.35	2.05	32x5.70-39	3.45	2.15	32x5.70-39	7.35	1.75
32x5.70-40	3.40	2.10	32x5.70-40	3.50	2.20	32x5.70-40	7.55	1.75
32x5.70-41	3.45	2.15	32x5.70-41	3.55	2.25	32x5.70-41	7.75	1.75
32x5.70-42	3.50	2.20	32x5.70-42	3.60	2.30	32x5.70-42	7.95	1.75
32x5.70-43	3.55	2.25	32x5.70-43	3.65	2.35	32x5.70-43	8.15	1.75
32x5.70-44	3.60	2.30	32x5.70-44	3.70	2.40	32x5.70-44	8.35	1.75
32x5.70-45	3.65	2.35	32x5.70-45	3.75	2.45	32x5.70-45	8.55	1.75
32x5.70-46	3.70	2.40	32x5.70-46	3.80	2.50	32x5.70-46	8.75	1.75
32x5.70-47	3.75	2.45	32x5.70-47	3.85	2.55	32x5.70-47	8.95	1.75
32x5.70-48	3.80	2.50	32x5.70-48	3.90	2.60	32x5.70-48	9.15	1.75
32x5.70-49	3.85	2.55	32x5.70-49	3.95	2.65	32x5.70-49	9.35	1.75
32x5.70-50	3.90	2.60	32x5.70-50	4.00	2.70	32x5.70-50	9.55	1.75
32x5.70-51	3.95	2.65	32x5.70-51	4.05	2.75	32x5.70-51	9.75	1.75
32x5.70-52	4.00	2.70	32x5.70-52	4.10	2.80	32x5.70-52	9.95	1.75
32x5.70-53	4.05	2.75	32x5.70-53	4.15	2.85	32x5.70-53	10.15	1.75
32x5.70-54	4.10	2.80	32x5.70-54	4.20	2.90	32x5.70-54	10.35	1.75
32x5.70-55	4.15	2.85	32x5.70-55	4.25	2.95	32x5.70-55	10.55	1.75
32x5.70-56	4.20	2.90	32x5.70-56	4.30	3.00	32x5.70-56	10.75	1.75
32x5.70-57	4.25	2.95	32x5.70-57	4.35	3.05	32x5.70-57	10.95	1.75
32x5.70-58	4.30	3.00	32x5.70-58	4.40	3.10	32x5.70-58	11.15	1.75
32x5.70-59	4.35	3.05	32x5.70-59	4.45	3.15	32x5.70-59	11.35	1.75
32x5.70-60	4.40	3.10	32x5.70-60	4.50	3.20	32x5.70-60	11.55	1.75
32x5.70-61	4.45	3.15	32x5.70-61	4.55	3.25	32x5.70-61	11.75	1.75
32x5.70-62	4.50	3.20	32x5.70-62	4.60	3.30	32x5.70-62	11.95	1.75
32x5.70-63	4.55	3.25	32x5.70-63	4.65	3.35	32x5.70-63	12.15	1.75
32x5.70-64	4.60	3.30	32x5.70-64	4.70	3.40	32x5.70-64	12.35	1.75
32x5.70-65	4.65	3.35	32x5.70-65	4.75	3.45	32x5.70-65	12.55	1.75
32x5.70-66	4.70	3.40	32x5.70-66	4.80	3.50	32x5.70-66	12.75	1.75
32x5.70-67	4.75	3.45	32x5.70-67	4.85	3.55	32x5.70-67	12.95	1.75
32x5.70-68	4.80	3.50	32x5.70-68	4.90	3.60	32x5.70-68	13.15	1.75
32x5.70-69	4.85	3.55	32x5.70-69	4.95	3.65	32x5.70-69	13.35	1.75
32x5.70-70	4.90	3.60	32x5.70-70	5.00	3.70	32x5.70-70	13.55	1.75
32x5.70-71	4.95	3.65	32x5.70-71	5.05	3.75	32x5.70-71	13.75	1.75
32x5.70-72	5.00	3.70	32x5.70-72	5.10	3.80	32x5.70-72	13.95	1.75
32x5.70-73	5.05	3.75	32x5.70-73	5.15	3.85	32x5.70-73	14.15	1.75
32x5.70-74	5.10	3.80	32x5.70-74	5.20	3.90	32x5.70-74	14.35	1.75
32x5.70-75	5.15	3.85	32x5.70-75	5.25	3.95	32x5.70-75	14.55	1.75
32x5.70-76	5.20	3.90	32x5.70-76	5.30	4.00	32x5.70-76	14.75	1.75
32x5.70-77	5.25	3.95	32x5.70-77	5.35	4.05	32x5.70-77	14.95	1.75
32x5.70-78	5.30	4.00	32x5.70-78	5.40	4.10	32x5.70-78	15.15	1.75
32x5.70-79	5.35	4.05	32x5.70-79	5.45	4.15	32x5.70-79	15.35	1.75
32x5.70-80	5.40	4.10	32x5.70-80	5.50	4.20	32x5.70-80	15.55	1.75
32x5.70-81	5.45	4.15	32x5.70-81	5.55	4.25	32x5.70-81	15.75	1.75
32x5.70-82	5.50	4.20	32x5.70-82	5.60	4.30	32x5.70-82	15.95	1.75
32x5.70-83	5.55	4.25	32x5.70-83	5.65	4.35	32x5.70-83	16.15	1.75
32x5.70-84	5.60	4.30	32x5.70-84	5.70	4.40	32x5.70-84	16.35	1.75
32x5.70-85	5.65	4.35	32x5.70-85	5.75	4.45	32x5.70-85	16.55	1.75
32x5.70-86	5.70	4.40	32x5.70-86	5.80	4.50	32x5.70-86	16.75	1.75
32x5.70-87	5.75	4.45	32x5.70-87	5.85	4.55	32x5.70-87	16.95	1.75
32x5.70-88	5.80	4.50	32x5.70-88	5.90	4.60	32x5.70-88	17.15	1.75
32x5.70-89	5.85	4.55	32x5.70-89	5.95	4.65	32x5.70-89	17.35	1.75
32x5.70-90	5.90	4.60	32x5.70-90	6.00	4.70	32x5.70-90	17.55	1.75
32x5.70-91	5.95	4.65	32x5.70-91	6.05	4.75	32x5.70-91	17.75	1.75
32x5.70-92	6.00	4.70	32x5.70-92	6.10	4.80	32x5.70-92	17.95	1.75
32x5.70-93	6.05	4.75	32x5.70-93	6.15	4.85	32x5.70-93	18.15	1.75
32x5.70-94	6.10	4.80	32x5.70-94	6.20	4.90	32x5.70-94	18.35	1.75
32x5.70-95	6.15	4.85	32x5.70-95	6.25	4.95	32x5.70-95	18.55	1.75
32x5.70-96	6.20	4.90	32x5.70-96	6.30	5.00	32x5.70-96	18.75	1.75
32x5.70-97	6.25	4.95	32x5.70-97	6.35	5.05	32x5.70-97	18.95	1.75
32x5.70-98	6.30	5.00	32x5.70-98	6.40	5.10	32x5.70-98	19.15	1.75
32x5.70-99	6.35	5.05	32x5.70-99	6.45	5.15	32x5.70-99	19.35	1.75
32x5.70-100	6.40	5.10	32x5.70-100	6.50	5.20	32x5.70-100	19.55	1.75

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32x5.70-21	2.35	1.00	32x5.70-21	2.50	1.20	32x5.70-21	3.58	1.48
32x5.70-22	2.40	1.10	32x5.70-22	2.55	1.25	32x5.70-22	3.75	1.75
32x5.70-23	2.45	1.15						

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- Electric Refrigeration
- Heating, Ventilating, Plumbing
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No more hard, unyielding pads since invention of Brooks Air Cushion.



The Double Inguinal Appliance is as comfortable to wear as a soft belt yet gives firm support.



Special Brooks Appliances are made for all types of reducible rupture and successfully fitted by mail.



A special handmade Cushion is used for Femoral Rupture with equal success.

## Learn About My Perfected RUPTURE INVENTION!

WHY worry and suffer any longer? Learn now about my perfected invention for all forms of reducible rupture. It has brought ease, comfort and happiness to thousands of men, women and children. You can imagine how happy many of these rupture sufferers were when they wrote to me that they had no further use for any kind of support. How would YOU like to be able to experience that same happiness? The only way to find out is to actually try this remarkable appliance. I guarantee it to fit properly and to hold comfortably . . . or it costs you nothing. Hurry—send coupon quick for Free Rupture Book, easy measuring chart, and PROOF of results.

## Patented AIR-CUSHION Support Gives Nature a Chance to CLOSE the OPENING

Surprisingly—continually—my perfected Automatic Air Cushion supports the weakened parts allowing Nature, the Great Healer, to swing into action! All the while you should experience the most heavenly comfort and security. No obnoxious springs, metal girdles or hard pads. No salves or plasters. My complete Appliance weighs but a few ounces, is durable, inconspicuous, sanitary and cheap in price. Wouldn't you like to say "goodbye" to rupture worries and "hello" to NEW freedom . . . NEW glory in living . . . NEW happiness with the help of Mother Nature and my perfected Air Cushion Appliance?

## PROOF!

Read These Reports on Reducible Rupture Cases (In our files at Marshall, Michigan, we have over 33,000 grateful letters which have come to us entirely unsolicited and without any cost of payment.)

### "Doctor Says Cured!"

"My son, Ivan, wore your Appliance until three years ago. The doctor pronounced him cured a year or two before that time. He is now on the Rice Institute track team of Houston, Texas, in a dash and relay man. He participated in track meets at Milwaukee and in the National A. A. U. at Buffalo this past June."—Mrs. Wm. H. Jones, Box 302, Hedley, Tex.

### "Gymnasium Instructor at 64"

"My rupture is greatly reduced after wearing your Appliance for a year. I have taken up my old work as gymnasium instructor for Stankon Park Baptist Church, and in showing the boys all the stunts, I have felt no ill-effects. Remember—I am 64 years of age, and I think it is very unusual for a man of my age doing hand-balances, especially with a double rupture, that the Brooks Appliance held me in. The above statement is true and correct."—Wm. H. Robertson, 122 17th St., Detroit, Mich.

### "Appliance Discarded"

"I discarded your Appliance about three months ago, having no further need for it. By that I mean I am perfectly cured and have no discomfort whatever after lifting pianos, etc., at my work."—G. Swindells, Long Beach, Miss.

### "Brooks Holds"

"I can't tell you how much I think of your trust, it sure has done me worlds of good. I have had work mining and so much lifting, but the trust held me and I never was bothered a bit with my rupture."—Joe Timmerlake, R. 2, Peoria, Ill., c/o Big Bear Coal Co.

## SENT ON TRIAL!

If your doctor says you have reducible rupture, and advises a proper-fitting support, don't delay but get free details about the Brooks at once. It will be sent on trial to prove its merits. In trying it you risk no money—and if it doesn't "work"—if it fails to completely satisfy you or your doctor—you return it and the trial costs you nothing. Beware of imitations! The genuine Brooks is not sold in stores or through mail order houses. Stop Your Rupture Worries—send coupon now! All correspondence treated as strictly confidential.

Brooks Appliance Co.  
480-K State St.  
Marshall, Michigan

### CONFIDENTIAL COUPON FOR RUPTURE SUFFERERS

H. C. BROOKS, President  
450 E. State St., Marshall, Mich.  
Rush me your Free Book, self-fitting chart, proof of results, all without obligation, and in plain envelope.



H. C. BROOKS  
Inventor

Name \_\_\_\_\_ State \_\_\_\_\_  
Street \_\_\_\_\_ for man,   
City \_\_\_\_\_ State \_\_\_\_\_ woman   
or child